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ABSTRACT

First in a series of three resource bibliographies for the development of population education in the Philippines, this bibliography contains abstracts of 69 documents about teacher training. Included in the bibliography are abstracts of books, periodical articles, ERIC documents, and unpublished theses from the United States, Philippines, and other countries. The abstracts describe works focusing on population education personnel training in various countries, studies of cooperation between administrators and teachers in inservice training programs, and analyses of techniques such as role playing and microteaching in training population education teachers. Entries are arranged in five subject areas: teacher education, superordinate training, modular training, peer training, and training techniques. Within each subject area the entries are categorized according to publication type. Each entry includes information on author, title, place of publication, publisher's name, date, and number of pages; a detailed abstract; and names of institutional libraries in the Philippines where the documents can be located. (AV)

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ABSTRACT-BIBLIOGRAPHY SERIES
Series One **Part One**

TEACHER TRAINING SCHEMES IN POPULATION EDUCATION

Prepared by

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POPULATION CENTER FOUNDATION

FOREWORD

This Abstract-Bibliography Series is a joint attempt of the Population Education Research Utilization Project and the Population Center Foundation Library to consolidate and generate a user-oriented reference or resource material base. The need to organize a system for developing data base through intensive and extensive searching, processing and storing of information through bibliography, among other vehicles, arises from the following conditions: (1) the substantial increase in the quantity and scope of research and documentation in population and related fields; and (2) the anticipated problem of handling efficiently the growing volume of information and material collection which the Foundation's Population Education Research Utilization Project and the other Research Utilization projects will be facing in the future.

This Abstract-Bibliography Series will not only systematize locating, storing, and organizing the materials but also facilitate dissemination of information. The Series provides bibliographic control to assist the Poped Research Utilization Staff, target audiences, and other interested parties in acquiring a tangible gauge of available materials in the Population Center Foundation Library. Furthermore, it also serves as a finding tool for materials produced in the various fields, including where such materials can be secured.

The first of this Abstract-Bibliography Series is on Teacher Training in Population Education. This subject was identified as a problematic area by professionals in population education through the spadework interviews conducted by the Poped RU staff. Being a user-oriented publication, all subjects to be dealt with in the Abstract-Bibliography Series will be based on information needs and recommendations of the users or the target audiences. For this first of a series, the Abstract-Bibliography will come in three parts:

Part I — Teacher Training Schemes in Population Education
Part II — Effective Evaluation of Teacher Training in Population Education
Part III — Strategies in Value Clarification in Population Education

The books, periodicals, and reports contained in each Part were used as reference materials for the three literature reviews of the same titles. The Abstract-Bibliography, together with the three literature reviews were primarily prepared and written for the professionals who will participate in the series of conferences on Population Education Research Utilization (Teacher Training) come April, May, June and July. These publications will also be available in limited circulation to other interested professionals in the population education and other related fields.

The materials contained in the Abstract-Bibliography Series include books, periodical articles, published reports found in ERIC (Education Resources Information Center), and unpublished materials-theses. For easier retrieval of the information, the names of other libraries and resource centers where some of the materials are located, have been properly identified and marked accordingly.

The Abstract-Bibliography Series will come out once a year together with the literature reviews of the same subject, in conjunction with the Population Education Research Utilization conferences.

DIRECTIONS FOR USE

This is a three-part Abstract-Bibliographic Series: Part I — Teacher Training Schemes in Population Education; Part II — Effective Evaluation of Teacher Training in Population Education; Part III — Strategies for Value Clarification in Population Education. Each part, in turn, is divided into lesser categories. Within each lesser category are the entries classified into Books, Periodical Articles, Published Reports (Educational Resources Information Center, ERIC for short) and Unpublished Materials (Theses). The entries are arranged alphabetically by author, institution or other main entry within each classification.

An abstract provides a brief summary of the purpose and content of a source document.

An abstract may either be INFORMATIVE or INDICATIVE. The informative abstract contains a statement of the author's thesis, several sentences of his development or proof, and his conclusions. It is a summary of an author's own ideas. The indicative abstract on the other hand, broadly presents the contents and format of a document. The former is a condensed duplication of the document's contents while the latter is a guide to the contents of a document.

This Series contains both types of abstracts.

The general format for most entries based on *Turabian's Manual for Theses Writing* is the following: author, title, place of publication, publisher's name, date, and number of pages.

For this series, however, we have added two items to the general format: 1) the symbol ED (for ERIC Document) with the number of a particular microfiche, and 2) the names of institutional libraries where the entry can be found, enclosed in parentheses.

Code of Institutional Libraries

The following is the code of institutional libraries where the materials abstracted here can be located. These libraries were chosen because they have a large collection of teacher training and population education materials.

AdeM	Ateneo de Manila University
DEC	Department of Education and Culture
FAPE	Fund for Assistance to Private Education
NRDCTE	National Research and Development Center in Teacher Education
PCF	Population Center Foundation
UP Ed	University of the Philippines, College of Education
UP SEC	University of the Philippines, Science Education Center

Interested parties may request extra copies of the Abstract-Bibliography Series and the materials cited in the Abstract-Bibliography from the Population Center Foundation Library. Xeroxed copies are priced at P0.70 per page.

METHODOLOGY AND STAFF

The Research Utilization: Population Education (RU PopEd) strategy consists of two processes: 1) the retrieval, transformation and communication of research findings through literature reviews and 2) feedback conferences for professionals (selected teachers, administrators, policymakers and researchers) in the field of population education with the reviews serving as springboards for discussions.

The reviews for the second cycle of conferences revolve around the problem area of teacher training, earlier identified by participants of the first cycle of conferences (held in Summer, 1975). Investigation through spadework interviews conducted in some provinces was made to ascertain *a priori* and emergent problems on teacher training. These interviews also determined the direction of an exhaustive literature search.

An exhaustive literature search was done on three topics: Teacher Training Models and Strategies, Value Clarification Strategies, and the Evaluation of Training. The search process involved making valuable contacts with individuals, resource centers or agencies which are repositories of or have access to resource materials on teacher training in population education. Bibliography listings of both local and foreign materials were solicited, from which the Staff selected those pertinent to their respective topics.

Although local materials were given high priority, difficulty was experienced in locating research studies or articles which were directly applicable to the topics being developed. This underscores the need for a systematized way of locating, storing, and organizing locally available materials in this research area, not to mention the need for new research.

Acknowledging the usefulness of a communication and dissemination scheme for reference materials available on the conference topics, abstracts of these materials were made to serve as supplement to the above-mentioned literature reviews. Aimed to reconstruct the original study, research abstracts were written to contain the study's objectives, methodology, findings and conclusions, and lastly, recommendations.

The package you now see is a product of the joint efforts of the RU:PopEd and the Library. The RU:PopEd Staff performed the spadework procedures and furnished the literature reviews and abstracts while the PCF Library ordered the reference materials needed. It will also be serving as repository for a majority of the materials contained herein. Both staffs contributed to the planning and supervising the technical details entailed in producing this output.

We wish to acknowledge the work of the following individuals on this first of an Abstract-Bibliography Series:

For Spadework Interviews and Literature Reviews

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TEACHER EDUCATION

Book

UNESCO. Asian Regional Office
Further Education of Teachers In-Service in Asia: A Regional Survey. Bangkok, 1973. 236 p. (AdeM)

The present survey was undertaken as a part of the Unesco Programme for 1971-1972 by the Asian Institute for Teacher Educators, Quezon City, in collaboration with the Unesco Regional Office for Education in Asia (Bangkok). The main purpose of the survey was to assemble information on the developments and trends in further education of teachers through in-service training in the Asian region, and to identify the growing points of innovative approaches for improving the preparation of teachers in service. Attention was to be given notably to identifying in what ways further education of teachers was linked in the countries of the region to programmes of curriculum development and the introduction of new teaching methods in schools. The survey was limited to teachers in service in primary and general secondary schools.

A questionnaire was sent to all member states in Asia, and those from which responses were received were visited by the professional staff members of the Asian Institute of Teacher Educators in order to collect supplementary data and obtain clarifications through personal discussion.

The reports in the survey indicate that there is a considerable range of innovative approaches in the way the countries are trying to deal with problems. First is the recognition that opportunities for learning should be adjusted to the learner's needs; the second is the recognition that experience of teaching is in itself a resource for further learning. The survey also helps to show that there are certain problems which the developing countries in the region seem to have in common. With the growth of in-service education programmes, there is obviously a need to plan and co-ordinate these programmes at the national level for greater effectiveness. Clearly identifiable budgetary support for in-service education is essential for developing a systematic plan.

Descriptors:
In-service teacher education; Teaching methods.

Published Reports

Dimock, Hedley G.

Studies on the Effect of Participation in Training and Supervisory Programs. Toronto: National Seminar on Adult Education Research, 1969. 5 p. ED 025 731 (AdeM, PCF)

This study describes the procedures used to evaluate the effect of twenty eight leadership development programs for young and middle-aged adults. The educational experiences were divided into four groups – low, medium, high and very high – depending on the level of the learners' participation and the extent to which the learning was focused on their interests and experiences.

These factors were rated on a subjective basis by the author. From a variety of approaches to predicting successful group leaders, a series of short questions that actually discriminated successful from unsuccessful group leaders were selected. Three attitude questionnaires were put together in a leadership inventory and studies of its reliability ranged from .70 to .90 (odd-even and test-retest). Studies of its validity in eight field situations ranged from .23 to .69 with an average of about .50. These are multiple correlations and were established using the Aitken Method with rank order correlations and the Jenkins Method with product-moment correlations. The findings revealed that high participation led to a more significant attitude change than low participation.

Descriptors:

Attitude tests; Changing attitudes; Leadership training; Participation; Questionnaires; Research; Test validity; Transfer of training.

Houston, Robert

A Guide to Behavioral Science Elementary Teacher Education Program. Washington D.C.: American Association of Colleges for Teacher Education, 1970. 81 p. ED 035 602 (AdeM, PCF)

A key concept of the Michigan State University Model is the clinical behavior style of the teachers it produces. Teachers are expected to approach teaching as clinical practice and to stylize a particular set of activities: describing, analyzing, hypothesizing, prescribing, treating, and observing consequences. Training in the clinical approach occurs in part, in a clinic-school-network – a cooperative project of the university and one more school system – where prospective school teachers observe and analyze teacher behavior patterns, where interns teach, and where the university staff develops teaching materials. The model, which was designed by interdisciplinary teams, has five major areas of study: (1) general-liberal education, (2) scholarly modes of knowledge, (3) professional use of knowledge, (4) human learning, and (5) clinical and field study. The trainee moves individually through single purpose experiences and modules, each of which aims for a specific behavioral objective.

The modules, as well as information about student progress, evaluation, research, and clinic-school settings (rural, sub-urban, and urban), are part of an information retrieval system. Trainees may specialize in a subject area and age group. The program also features entrance requirements based on evolving standards, criterial feedback for program modification, early trainee experience with children, and faculty involvement in field experiences.

Descriptors:

Behavioral objectives; College school cooperation; Differentialist staff; Elementary school teachers; Experimental schools; Feedback; Interdisciplinary approach; Internship programs; Models; Preservice education; Systems approach; Teacher education; Teaching experience; Teaching styles.

Johnson, Charles E.

A Guide to Georgia Educational Model Specifications for the Preparation of Elementary Teachers. Washington D.C.: American Association of Colleges for Teacher Education, 1969. 41 p. ED 025 491 (AdeM, PCF)

The Georgia Education Model has, as its criteria, teacher performance behaviors which are lists of competencies embracing both professional performance and liberal education. The behaviors were systematically developed by inter-disciplinary teams through the use of numerous resources including descriptions of desired pupil behavior and teacher job analysis. Attention was given to all aspects of development: cognitive, psychomotor, and affective. Specifications require that all learning activities be directly related to these teacher performance behaviors.

The vehicle for organizing and presenting learning activities and materials is a proficiency module (PM), a manual of instructions (available from computers, published documents, or the student himself) designed to guide student learning through individual study and group interaction activities toward acquiring particular behaviors. Professional workers in the field are an integral part of the instructional staff. Instruction is individualized and clinical. Before undertaking any set of learnings, a student must be satisfied that he has met the pre-requisite. Upon completion of any set of learning, he must show proficiency. The average student qualified for admission to the program will take approximately six years to complete the entire career sequence – both pre and inservice. This career sequence is divided into three phases: the professional which focuses on preparation for paraprofessional services; the professional, which prepares the candidate for service as a certified teacher; and the specialist, which prepares the candidate with a specialist degree in one of 15 selected areas. To provide the student with security and guidance as he moves at his own rate through the program, specifications call for a comprehensive continuous student orientation and advisement program.

Evaluators start with admission when data obtained from numerous sources are

used in candidate selection. Therefore, evaluative measures are prepared for each module, block and phase of the module. All data is placed on tape storage for availability for both short and long range evaluation of individuals and program subsystems. Among the models, other features are laboratory and field experiences; multiple entry points and paths; reciprocal agreements with local schools agencies; depth; year round education and sensitivity training.

Descriptors:
Behavioral objectives; Computer oriented programs; Elementary school teachers; Individualized instruction; Inservice teacher education; Models; Performance specifications; Preservice education; Teacher education; Teaching experience.

Johnson, Charles E.
Criteria for Validating the Feasibility of the Components of a Model Teacher Program. Athens: Georgia University, College of Education, 1969. 13 p. ED 040 920 (AdeM, PCF)

This paper contains the criteria for validating the technical and sociopsychological validity of the Georgia model for the preparation of elementary school teachers. The criteria, regarded as essential features for the effective operation of the model program, were developed during the planning activities preceding the funding of the project in 1968.

The criteria were classified in broadly conceived components of the model which are: (1) Teacher Performance Behavior Component Criteria. At the core of the instructional program there must be a comprehensive set of behaviors which must clearly and directly tend toward satisfying the needs of society and the individuals of which it is composed; (2) Candidate Selection Component Criteria. The candidates selected for admission to the model program preparatory to teaching in the elementary schools must have those personnel characteristics which are requirements of the behaviors which form the core of the program; (3) Instructional Component Criteria. The criteria for the component of instruction have been subclassified under the following headings: learning activities and materials, instructional procedures, program sequence, and evaluation of student achievement; (4) Program Evaluation Component Area. The techniques and instruments used for program evaluation must take into account all components of the program so as to provide for the systematic and continuous revision and improvement of the model program; (5) Staff Orientation Component Criteria. The procedures used for the orientation of the staff of the model program must be such as to insure that the model program would be soundly implemented and carried into sustained operation; (6) Reciprocal Commitments Component Criteria. The model program must involve numerous state and local agencies for effective sustained operation; (7) Administrative Organization Component Criteria. The instructional program must be the basis for determining the administrative organization which will implement the model program.

Descriptors:
Elementary school teachers; Evaluation criteria; Models; Program design; Teacher education; Comprehensive elementary education models.

Klassen, Frank H. and Others
Innovation in Teacher Education: An International Perspective. Washington D.C.: International Council on Education for Teaching, 1972. 181 p. ED 063 272 (AdeM, PCF)

This volume presents a sampling of major innovative programs in a broad range of teacher training institutions. It is a selection of 39 case studies, focused on innovations in teacher education in Asia, Europe, Latin America, and the United States. The case studies are selective; certain areas of the world are not canvassed; the majority of the contributions come from the United States. The innovative programs are particularistic in the sense that in most cases the changes are not directed toward a total metamorphosis of an institution on teacher education in all its phases (general education, professional studies and clinical or field experience) but rather emphasize changes in specific components of a total program. No attempt has been made to provide a comprehensive definition of "innovation." The diversity of techniques and theories described in the case studies supports the contention that innovation assumes many guises, each with its own rationale, relevance and utility.

Eight areas of innovation are studied, including (1) performance-based teacher education; (2) in-service education; (3) field-centered teacher education; (4) educational media, technology and teacher education; (5) teacher education for rural transformation; (6) individualized teacher education; (7) integrated teacher education; and (8) innovation in teacher education at a national level. Each study section is provided with an introduction and three to eight case studies.

Descriptors:
Change agents; Educational change; Educational development; Educational innovation; Educational needs; Educational program.

New York. Syracuse University
Summary of the Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Summary of the Final Report, New York: Syracuse University, October, 1968. 10 p. ED 032 264 (AdeM, PCF)

This summary is intended to provide a cognitive distillation of the essential assumptions, program elements, supporting structures, and organizational considerations that constitute this Model Program. This is a 5-year-self-paced model program for the preparation of elementary school teachers based on six assumptions: that no one point of view is best in teacher education; that because of societal change there is a need for self-renewing teachers; that an intent-action-feedback process is needed to keep the program self-renewing; that continual inservice training is necessary for teacher educators; that individual uniqueness should be accomodated; and that cooperation between teacher education institutions and schools is needed.

The model consists of components (a liberal education component and six professional components) which are composed of instructional modules and which provide for independent study of small group instruction. The liberal education component provides general knowledge to a student through part of his junior year. The process-oriented professional components, in conjunction with simulated or actual teaching experiences, provide instruction and specialization through the senior year to provisional certification. An optional fifth year provides partnership teaching with in-depth study in the six professional components. In addition, three support systems facilitate program utilization: the program support system, the information and evaluation system, and the organizational support system.

Descriptors:
Educational change; Elementary school teachers; General education; Individual development; Social change; Teacher education; Teaching experience.

Snow, Richard E.
A Model Teacher Training System, an Overview. California: Standord University, Stanford Center for Research and Development in Teaching, August, 1972. 18 p. ED 066 437 (AdeM, PCF)

This report provides an initial overview of the Model Teacher Training System, the development of which is a major goal of the Program on Teaching Effectiveness of the Stanford Center for Research and Development in Teaching. Detailed explication of its development will be presented in subsequent reports. Separate presentations will be prepared for each system element: selection, diagnosis, and placement; programmed training; practice; non-programmed training; assignment and follow-up; assessment; and system revision. Provisional decisions have been made to focus the model system on the vestibule training of public school teachers in skills generalizable across content areas of science, mathematics, social studies, and English for grades 3-12. It is noted, however, that the training system should be of use at many points in a continuing program of preservice and in-service teacher education.

Initial steps have been taken to clarify design problems concerning the particular kinds of skills to be included in the training system and the means by which the system can be made adaptive to individual, institutional, and community needs. These design decisions and problems may also be the subject of subsequent reports.

Descriptors:
Effective teaching; Inservice education; Prescience education; Teacher education; Teacher improvement; Teaching models.

Unpublished Reports

Wayland, Sloan R.
Recommendations for Personnel Training in Population Education. Paper presented at the Consultative Seminar on Training Needs in Population Education Programmes, Bangkok, Chiangmai, January 6-12, 1975. Bangkok: Unesco Regional Office for Education in Asia, 1975. 17 p. (PCF)

The paper presents some suggested guidelines for designing training programmes for personnel responsible for developing population education activities. Attention is first addressed to the general functions that make up an operational population education programme. These functions identify training needs that form the basis for considering the content and process of training.

The functions to be performed by a population education team at a central level can be considered under five headings: (1) administration; (2) curriculum development; (3) training of in-service teachers and supervisors; (4) evaluation of curriculum units of training activities; and (5) research on knowledge-based problems and on aspects of students and teacher perceptions, attitudes, knowledge, values. Parallel to the consideration of the functions and the related training needs are the various aspects of the content of training programmes. Some phases of the content may be appropriate regardless of the function which is to be performed. In addition certain aspects of specialized training may be of particular relevance for persons with responsibility for certain functions. The categorization of the content areas is related to, but of a different order from the general functions.

Following are the components of a core programme of orientation and training in population education issues: (1) provision of an orientation to the issue of the relationship of population matters to quality of life, (2) examination of knowledge base in population studies; (3) consideration of knowledge bases into instructional activities; and (4) formulation of an administrative structure and an overall plan for

moving the innovation from the initial phase to the institutionalization as an integral part of the school curriculum. The paper includes a general schedule for personnel training workshop.

Descriptors:
Population education; Educational programs, Curriculum development.

Asian Centre of Educational Innovation for Development

Teacher Education and Curriculum for Development. Report of a Regional Planning Workshop, Quezon City, Philippines, 19-31 May 1975. Bangkok, UNESCO Regional Office for Education in Asia, 1975 50 p. (UP College of Educ)

A Regional Planning Workshop on Teacher Education for Curriculum Development, jointly sponsored by the Asian Centre of Educational Innovation for Development (ACEID) and the College of Education, UP, was held at the Benitez Memorial Centre, UP, from May 19-31, 1975. The workshop aimed to prepered guidelines (1) for development of modules for curriculum designers with reference curriculum for development, (2) for development of modules for selected elements of the core curriculum of teacher education and (3) for subregional training programs. The central theme of the workshop was to consider curriculum and teacher education in relation to the national efforts for development, particularly in the areas of health and nutrition, employable skills and rural transformation. Participants to the workshop came from the Asian region, including the Philippines. Representatives from the International Labor Organization (ILO), the World Health Organization (WHO) and the Southeast Asian Ministers of Education Secretariat (SEAMES) attended as observers. The first part of the workshop report reviews the existing projects, activities and plans in the participating member states. The second part identifies the main thrust of educational innovation and the strategies of implementation in the Asian countries. These areas, namely, health and nutrition, rural development of employable skills training and rural transformation, serve as the core of the educational pro gramme around which the entire learning programs are being developed. The third part provides some guidelines to a curriculum designer for the development of curriculum geared to national development and pertaining to the three key areas: health and nutrition, employable skills and rural transformation. The fourth part were guidelines for teacher educators for developing modules.

Descriptors:
Teacher education; Curriculum development; Curriculum design; Guidelines; Curriculum planning.

Superordinate Training

Published Reports

California. San Francisco State College.

STEP-TTT. Final Report. September 1, 1969 to August 31, 1970. California: San Francisco State College and San Francisco Unified School District, 1970. 150p. ED 046 862 (AdeM, PCF)

The report describes Project STEP-TTT, a joint teacher education program of San Francisco State College and San Francisco Unified School District which began in 1966. The "S" in STEP stands for San Francisco State College and San Francisco Unified School District and the "TTT" stands for Trainers of Teacher Trainers. The STEP-TTT training of teacher trainers is based on a career ladder of participants at the following levels: (1) TTT - college instructors and demonstration supervisors trained mutually for supervision and instruction focused on general strategy and the Taba Curriculum Project; (2) TT - district supervising classroom teachers who are trainers of the teacher candidates and are trained by the TTT instructors; (3) T – first year teachers employed in San Francisco Unified School District; (4) TC – teacher candidates trained by TTT staff and supervising classroom teachers.

Participants at each level are trained in a different locale and at a different time, as determined by the focus and objectives of their training. In all instances, training shifted to a place and time conducive to a more intensive workshop or direct experience. TTT training took several forms: on-the-job training, communication, and TTT guided formal training. The training format generally followed was: for each strategy there was an "awareness" demonstration followed by team tryout on the other members. Each staff member had a chance to teach the group using one or part of the strategies. Then the team analyzed the teaching, identified weaknesses and loopholes of training, and explained the refined strategy in the vocabulary of the trainees. At the end of the training, the staff and the trainees recalled the questions of the strategies, identified similarities and differences and generalized as to the value of the type of strategies.

The major recommendations for TTT staff training focused on: (1) increased participation of community and college on parity level; (2) concentration on in-service training for TTT, TT, and T competencies; (3) focus of efforts in one school; (4) further development and articulation of STEP-TTT approach; (5) division of labor and accountability with persons so that specific persons be actually responsible for implementation.

Descriptors:

College school cooperation; Cooperating teachers; Inservice teacher education; Preservice education; School community relationship; Social studies; Teacher education; Teacher educator education.

Central Connecticut State College

Man: a Course of study; Teacher Training and Dissemination Project. Final Report. New Britain: Central Connecticut State College, Regional Center for the Improvement of Instruction in Elementary Social Studies, 1970. 141 p. ED 049 963 (AdeM, PCF)

This 15-month project of the Regional Center for the Improvement of Instruction in Elementary Social Studies has for its purposes the strengthening of the professional training of teachers, improvement of elementary social studies instruction, provision for the successful implementation of new social studies curricula and the creation of a setting for research in problems of teacher training and curriculum innovation. Man: a course of study, a revolutionary social studies program for the intermediate level developed by the Education Development Center, was selected as the vehicle for carrying out these goals. This project is divided into six sections: (1) teacher training, both inservice and preservice, the former consisting of two summer workshops for teachers who would be teaching the new curriculum and training colleagues; (2) consultation, covering the

project's efforts to help implement the curriculum in Northeastern School districts; (3) dissemination, discussing publicity of the center's curriculum; (4) evaluation, assessing whether the project has been a success in meeting the needs of the participants; (5) personal observations; and (6) appendices, which include institute brochures, samples of correspondence, institute schedules and lists of participants and leaders and letters of support.

Descriptors:
Information dissemination, Inservice teacher education; Institutes (Training programs); Instructional innovation; Methods courses; Preservice education; Program evaluation; Teacher education; Teacher workshops; Social studies; Diffusion.

Chicago. Chicago Public Schools
Assessment of the Cerli Training Program, Specialist in Continuing Education (SCE), for Chicago Public Schools, Feb. 10 - March 21, 1969. Northfield, Illinois: Cooperative Educational Research Lab., Inc., June, 1969. 107 p. ED 035 971 (AdeM, PCF)

Under contract with the Chicago Public Schools, the Cooperative Educational Research Laboratory, Inc. (CERLI) conducted a program for training inservice leaders from February 10 through March 21, 1969. This program achieved the dual purpose of training Chicago Public Schools personnel and of pilot-testing Cerli's primary developmental activity—the training program, specialist in continuing education (SCE).

This report describes the 6-week program, presents a data analysis of its immediate impact, and briefly discusses the findings and limitations of the program. Among the methods used were: the research questionnaire, the problem approach exercise, daily evaluation form, staff evaluation exercise, participant evaluation exercise, staff rankings of participants. The developmental nature of the SCE program and the curtailment of Cerli's activities precluded the collection and use of follow-up data about this and previous training programs. Consequently, no valid evaluation of the long-range impact of the training was submitted.

Descriptors:
Attitude tests; Data analysis; Inservice teacher education; Laboratory training; Participant characteristics; Problem solving; Program content; Program evaluation; Public schools; Questionnaires; Regional laboratories; Specialists; Training objectives; Urban schools.

Hawley, William B. and Vellanti, Joseph T.
Trainers of Teachers of Teachers. East Lansing: Michigan State University and Lansing School District, Michigan, 1970. 86 p. ED 043 593 (AdeM, PCF)

Trainers of Teachers of Teachers (TTT) is primarily concerned with the preservice and inservice development of the trainers of teacher trainers and their students. This is done through a new pattern of graduate intern experience in a "school clinic" where representatives of the university, the schools, and the community meet in an urban secondary school complex to learn by means of a systematic analysis of the school environment.

An outline of the pilot-year activities was developed by the Michigan State University and the Lansing School District summer planning committee in an 8-week workshop. A 10-day full orientation program was conducted for the 34 participants (staff and interns) in the full time academic year program. The clinic operated by means of three teams (humanities, natural sciences, and social sciences), each including MSU professional fellows, MSU student fellows, a Lansing school teacher, a Lansing consultant, and a community representative, associated on a parity basis. Although the seminar focused on developing specific competencies by graduate interns (from understanding urban education problems to developing teacher educator skills), other participants also learned as they cooperated in a variety of activities in the Eastern High and Fattengill Junior High School, e.g., planning and teaching a seventh grade life science course. Included are lists of major strengths, weaknesses, and recommendations for improvement and a table summary of goals, activities and results.

Descriptors:
College school cooperation; Community involvement; Field experience programs; Graduate students; Professors; Teacher educators; Teacher seminars; Team training.

Sisk, Jean C.
Cooperative Involvement of Administrator-Supervisor-Teacher is the "Right Mix" for In-service Training. Speech given at the Annual Convention of the National Council of Teachers of English, Atlanta, November, 1970. Maryland: Baltimore County Schools, 1970. 11 p. ED 051 234 (AdeM, PCF)

As an outcome of a pilot in-service training course in newer approaches to English-language teaching, an EPPA Basic Studies Project for in-service training in elementary language arts was begun in Baltimore County Schools. The central staff supervisors in the division of curriculum and instruction were the key people in the planning and development of the program. They had informal but close liaison with the English and Education Departments of at least six nearby colleges, ties with individual professors and in some cases with administrative personnel. The leadership in setting up the proposal came from the English Office, but at each stage in the plan teachers who worked in curriculum development related to the project, administrators in elementary pilot schools already established, and college consultants were asked to assist in the planning of the project.

Once the program got underway, the staff of the project itself represented the numerous groups – the instructor of the introductory courses for teachers were two of the vice-principals from curriculum com-

mittees and pilot schools, the college consultants served as lecturers in the workshop for administrators, one-long-range consultant cooperated with the director and staff as main lecturer for the advanced course. The staff instructors also served as consultants to local schools. Demonstrations for and by teachers formed an integral part of the in-service program as were lectures made by visiting guests and speakers. Teachers and administrators were involved also in the ongoing evaluation of the program. Cooperation throughout the project resulted in much closer ties between supervisory personnel and local school administration, between college professors and school staff, between secondary and elementary personnel. In some cases principals of local schools worked closely with the community-in-school public relations.

Descriptors:
Cooperative planning; Elementary school curriculum; English programs; Inservice teacher education; Pilot projects.

Spodek, Bernard
In-Class Teacher Training for Open Education. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Illinois, April, 1972. Urbana: University of Illinois, 1972. 6 p. ED 063 043 (AdeM, PCF)

The report is based upon the work done in the Open Education project of the University of Illinois. The project was established in order to provide training for a future leadership group in education and for those who would be enrolled as doctorial fellows at the University. In addition, the project provided supportive services and teacher training to a group of teachers who wished to move towards Open Education in many parts of the state of Illinois.

The doctoral fellows, along with additional staff, provided the teacher training services in the project, primarily on-site. The role of the in-class teacher trainer was central to the process of extending Open Education, with advisors or consultants serving in this capacity. The role of the advisor and his relationship with the classroom teacher was a constantly shifting and changing one. Variables in the role of the advisor were: (1) locus of control – the advisor always used his role and the way in which he worked with teachers as a way of communicating the characteristics of open education and the ways that teacher might work with children; (2) function of time – as the relationship between advisor and advisee continues, changes occured in that relationship and in the function of the advisor; (3) development of trust or credibility – the basis for any helping relationship was the degree of trust felt between the client and the helper; (4) intrusion of local constraint – in each project setting, the role of the advisor was determined not only by the individuals in the teacher - advisory relationship, but also by various constraints within the local situation; (5) function of expectations – the teacher, in entering the relationship, had already anticipated what would be, as did the advisor. Each set of expectations helped to determine what would be viewed as appropriate or inappropriate; (6) skills and resources needed for the function of the advisor – advisors needed to be viewed as competent to build credibility; they also need competence for their function; (7) professional, personal needs – a number of different causes motivated persons to join the education profession and a number of different personal needs to be met by those who moved up the competency ladder within the profession; (8) building autonomy – while teachers controlled the relationship with the advisors, the advisors influenced this relationship over time. These variables were the dimensions of the advisory role and its relationship to teachers that were worthy of study.

Descriptors:
Classroom guidance programs; Curriculum development; Inservice teacher education; Motivation; Open education; Role theory; Supervisory activities; Teacher educators; Teacher improvement; Teaching techniques; Workshops.

Unpublished Reports

Haque, Mokammel
Training Needs in Population Education in Bangladesh. Paper presented at the Consultative Seminar on Training Needs in Population Education Programmes, Bangkok, Chaingmai, January 6-13, 1975. Bangkok: UNESCO Regional Office for Education in Asia, 1975. 8 p. (PCF)

The most critical population situation now obtaining in Bangladesh has made it imperative for the nation to lend highest priority to the introduction of population education in the formal educational system as embodied in their National Population Education Programme. The implementation of the National Population Education Programme entailed a systematic plan for the training of concerned population education personnel at various levels. The general strategy enshrined in the programme for introducing population education maybe termed as the system-wide approach, implying the simultaneous introduction of population education throughout the education system from grades 4 through 14, after the preliminary work had been completed.

The preliminary work involved the training in population education of an adequate number of specialists, programme officers, teacher-trainers, teachers from the primary to the college levels and teachers of vocational and technical institutions. Prior to the launching of the Programme, seminars were held at the national level for the top educators and other outstanding intellectuals to orient them on the nature, objectives, and activities of the programme. A core staff, some trained abroad in population education and some trained at the national level with the help of national and international resource persons, was responsible for the operation of the programme, training of teacher-trainers, development of curricular and instructional materials, evaluation and research. Teacher-trainers were trained through workshops, and the Thana Education Officers were trained with the help of Mobile Education Teams. Teacher-

trainers and Thana Education Officers in turn trained the teachers in all levels – primary, secondary, college. International experts were used as consultants for related projects in population education undertaken by the Institute of Education and Research, Education Extension Centre and the Institute of Statistical Research and Training.

Descriptors:
Population education; Training; Bangladesh.

Jayarawan, T. R.
Training of Personnel for Population Education in India. Paper presented at the Consultative Seminar on Training Needs in Population Education Programmes, Bangkok, Chiangmai, January 6-13, 1975. Bangkok: UNESCO Regional Office for Education in Asia, 6 p. (PCF)

In India, Population Education as a subject of school education evolved gradually. It started as far back as 1955 when the Ministry of Education formed a Committee on Health Education and Nutrition that developed a health education syllabus for all stages of education including teacher education at primary and secondary levels. Included in the syllabus were subjects on the importance of family size for family welfare and objectives of family planning. At a much later stage the Government of India established the National Council of Educational Research and Training and its unit on Population Education became responsible for the preparation of the syllabi as well as instructional materials on population education.

Teacher preparation in population education consisted of two programmes: (1) a long-range programme which included suitable population education elements in the pre-service training syllabus both for primary and secondary school teachers. The primary pre-service training course population education topics were incorporated in the "content" material. For the secondary pre-service training course, the Population Education Unit of the National Council of Educational Research and Training developed a population education syllabus; (2) a short-term programme which consisted of short in-service courses for existing teachers – a massive re-orientation programme for existing teachers through summer institutes, correspondence courses backed by radio, films and contact programmes using teacher training colleges.

Strategies adopted for teacher preparation for imparting population education in India are: incorporation of suitable units in the preservice courses for teachers in the primary training schools and secondary teachers degree courses; incorporation in the BA/BSC degree syllabi of population education units; special inservice training courses and orientation courses for existing teachers; special workshops and courses for teacher educators; special orientation courses for persons in charge of non-formal education; correspondence courses; research into training problems connected with population education.

Descriptors:
Population education; Training; Personnel management; India.

Saiyut, Champatong
The Training Programme of Population Education Personnel in Thailand. Paper presented at the Consultative Seminar on Training Needs in Population Education Programmes, Bangkok, Chiangmai, January 6-13, 1975. Bangkok, 1975. 7 p. (PCF)

Population education is an integral part of the Thai educational system, both for the school and non-school programmes. Since it is a new term involving new ideas, its introduction into the educational system has to involve the whole process of education from curriculum development to classroom teaching. Therefore, a series of educational personnel (the teachers especially) were trained in population education. Problems which were taken into account concerning the training of the teaching personnel in population education were the level of general education, the teacher's own values and the method of presentation by teachers.

The operational plans of the training programme included several projects for pre-service training, in-service training (for primary teacher, secondary teacher, teacher trainer) and training of pupulation education leaders for the school programme. For the non-school programme, teachers taught their students according to the way they were taught. The teacher training programme involved no lecture on how to teach and conduct classes. The only lecture conducted were on the philosophy of the programme. Topics such as the curriculum, the relevance of the text, the set-up of a class, methods of teaching, evaluation of the programme were done through group discussions and problem solving situations.

Descriptors:
Population education; Curriculum development; In-service teacher education; Educational programs; Thailand.

Soriano, Liceria Brillantes

Training Needs of the Philippine Population Education Program. Paper presented at the Consultative Seminar on Training Needs in Population Education Programmes, Bangkok, Chiangmai, January 6-13, 1975. Bangkok: UNESCO Regional Office for Education in Asia, 1975. 9 p. (PCF)

The population Education Training Program in the Philippines has two major thrusts: (a) the inservice training of 187,000 elementary school teachers (85 % of the total) in each of six grades and some 16,000 (20% of the total) secondary teachers; and (b) the establishment of preservice courses in population education for student teachers in over 300 teacher training colleges. Elementary and secondary school teachers, together with administrators and principals, were trained in one-week (5 days) courses conducted by Supervisory Training Teams (STTs). STTs consisted of two district supervisors selected by their superintendent and trained in Manila on a five week national training course. The national five-week courses were conducted by the PEP Training Officer and his staff with support from resource speakers who handled specialized aspects of the course material. The training programmes of the PEP have built-in evaluation systems that enable administrators to assess the different aspects of the programme and identify needs.

A few of the major needs which have been identified in the Philippine population education training programs are (1) establishment, either at national or regional level, of training facilities in population education for training colleges and university faculty; (2) provision of large inputs of books and similar audio-visual materials and a continuing supply of up-to-date information to support the pre-service training programs; (3) production of training manuals for the STT training course and the one-week training programme to maintain uniform standards of content and methodology in all training programmes; (4) prompt distribution and proper accounting of training materials; (5) provision of funds for the transport of training materials; (6) supervision of trainers at work as well as the classroom teachers actually teaching population education in their own classes; (7) evolvement of an evaluation scheme which identify discrepancies between what teachers have been trained for and what they do and (8) development of a retraining programme to meet performance discrepancies.

Descriptors:
Population education - Programs; Training; Philippines.

UNESCO. Asian Regional Office

Consultative Seminar on Training Needs in Population Education Programmes, Bangkok, Chiangmai, January 6-13, 1975. Draft Report. Bangkok, 1975 31 p (PCF)

The Consultative Seminar on Training Needs in Population Education Programmes was convened by the UNESCO Regional Office for Education in Asia to: (1) study the needs and problems in personnel training and suggest approaches for developing and promoting long term as well as immediate action programmes designed to meet more adequately the training needs in population; (2) exchange practical experiences gained in the course of the implementation of the programmes by Member States; and (3) identify research related to personnel training and make recommendations for regional co-operation in training programmes.

The Seminar was held in Chiangmai, Thailand, from January 6-13, 1975, and brought together participants from Bangladesh, India, Indonesia, the Republic of Korea, Malaysia, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Viet-nam and observers from FAO, UNICEF and IPPF. Each country participant was requested to prepare in advance a working document concerning the experience of the country in the development of population education with special reference to training personnel. The documentation included reports on population education programmes in participating Member States. These reports were supplemented by oral presentations by the participants, each presentation being followed by question and answer discussion which helped not only in creating a better understanding of the situation in each country but also in identifying useful and shareable experiences.

Two working documents, "Training Needs in Population Education Programmes in Asia," and "Recommendations for Personnel Training in Population Education," presented an account of pupulation education, training needs, problems in personnel training, curriculum development, strategies of training and their implications for action at the regional levels. Immediately following the Seminar, a Technical Working Group met at Bangkok from January 14-22, 1975, to work out the principal recommendations of the Seminar in the form of programme of activities.

Descriptors:
Population education - Programs; Training; Consultation programs.

UNESCO. Asian Regional Office

Training of Population Education Personnel in the Republic of Korea. Paper presented at the Consultative Seminar on Training Needs in Population Education Programmes, Bangkok, Chiangmai, January 6-13, 1975. Bangkok, 1975. 3 p. (PCF)

The Population Education Project of the Korean Government included four major activities: (1) curriculum and materials development for elementary and secondary schools and adult education; (2) training for teachers and administrators; (3) demonstrative college programmes; and (4) basic researches. Each of these activities was carried out by independent educational research and development agencies and colleges and universities.

Training of population education personnel was carried out in several stages: (1) Training of Teacher Trainers. Sixty-four faculty members of Junior Teachers' Colleges, eleven faculty members of Provincial In-Service Centres and seventy-five selected elementary and secondary school principals were trained in groups of 30 at five universities in courses of 10 weeks' duration. Persons trained under this programme constituted the nucleus of the training teams that undertook the training of elementary teachers. (2) Training of Administrators. Two thousand principals, vice-principals, and supervisors were trained in groups of 50 at eight universities in courses of 5 days' duration. (3) Training of Primary School Teachers. Thirty-five thousand elementary school teachers were provided 5-day courses in groups of 50 by training teams of 2 each, organized by the junior teachers' colleges and provincial in-service training centres. (4) Training of secondary school teachers. Fifteen thousand secondary school teachers were provided 5-day courses in groups of 50 by fifteen universities and eleven provincial in-service training centres. The faculty members of the provincial inservice training centres were assisted by the secondary school principals trained under the administrators' training programme.

The training institutions coordinated their activities at a 10-day workshop organized by the Ministry of Education. All training programmes adequately looked after in-service training needs for the effective implementation of the population education programme.

Descriptors:

Population education; Training program; Personnel management; Korea, Republic of

Books

Green, Edward J.

The Learning Process and Programmed Instruction. New York: Holt, Rinehart & Winston, 1962. 228 p. (AdeM, PCF)

This book tries in some measure to bridge the information gap between the experimental psychologist in his study of the learning process and the classroom teacher faced with the practical problems of education. The author theorizes that there are techniques available for the control of behavior that can be applied imaginatively to practical education. Programmed instruction at present employs only the simplest of these techniques.

The first half of the book therefore attempts to sufficiently familiarize the reader with some useful concepts and techniques of control to interest him in applying them to his own classroom procedures. The second half elaborates on the concept of programmed instruction. The importance of teaching machines, techniques for programming and evaluation are also discussed.

The exploitation of techniques of behavioral control is a challenge for the experimental psychologist. The author expresses the hope that the present problems of education are the same as those met in the laboratory. He concludes that looking at behavior from the point of view of the experimentalist can, in turn, provide the teacher with fresh insights that need not dehumanize his relationship with his students, but rather afford a more effective teacher-student relationship in the best sense of the term.

Descriptors:
Learning process; Programmed instruction; Teachers.

Lysaught, Jerome and Williams, Clarence M.

A Guide to Programmed Instruction. New York: Wiley, 1963. 180 p. (AdeM; PCF)

This book is intended to serve as a concise guide to programmed material. It is the first of its kind, a complete blueprint of the techniques of programming.

The reader is first familiarized with the origins and the general background of programmed instruction. Then, the fundamentals of the new method are discussed. A learning program is a carefully ordered and organized sequence of material to assure the best possible learning conditions for a student. The program embraces both the factual matter of the subject and the skills involved in learning patterns, using every aspect of reinforcement theory to lead a student to a full understanding of its material. Thus, the program and the person who devises it bear the major responsibility for the students' success. If the student commits errors or fails to master the subject matter, the fault is the program's, not the student's.

Finally, this book teaches the reader to create and evaluate programmed matter in different subject areas, and to use programing for general and specialized educational purposes. The authors point to voluntary cooperation, extended field study, resistance to overgeneralization and the yearning to experiment as the avenues to progress.

Descriptors:
Programmed instruction; Programmed materials.

Schramm, Wilbur

Programmed Instruction Today and Tomorrow. New York: The Fund for the Advancement of Education, 1962. 74p. (AdeM, PCF)

The thesis of this report is that programmed instruction is, in the best sense of the word, a truly revolutionary device, but it is such not so much in itself, as in its ability to interact with certain other developments in education. This interaction has the potential of freeing schools and men from old bondage and outworn theories and practices. But the potential is, so far, largely unrealized. To support this contention, Schramm discusses programmed instruction as it is today, some currents in education which are boiling up around it, and finally about what it might be tomorrow. Schramm makes some suggestions as to how a desirable rate and pattern of development might be encouraged.

He recommends that more of the effort at making programs must be placed on the growing edge of the art, rather than on the safe and conservative commercial "center". More research must be directed toward the larger implications and theoretical problems of programmed instruction. The schools must make more imaginative applications of programmed instruction, accompanied by developmental research and testing. Teachers must be trained to use programmed methods expertly. Other channels of teaching must be examined to see where they can beneficially apply some of the principles of programmed instruction. The skills and understanding of programmed instruction must be shared with the developing nations. Adequate channels of information must be established among the many and diverse people interested in the development of programmed instruction.

When we understand more than we do now how to combine different kinds of programming, how to vary the schedule of reinforcement, and how to fit a program to different learning objectives and student abilities, above all when we learn more how to maintain the student's interest and challenge him through what is now very often a dull exercise in conditioning, then programs are likely to look far different from the way they look today.

Descriptors:

Programmed instruction; Instructional materials.

Periodical Articles

Haefele, Donald L.

"Self Instruction and Teacher Education." Audiovisual Instruction, XIV (January, 1964), pp. 63-64. (AdeM)

The University of Tennesee developed and implemented an experimental pilot program in teacher education to test a new four-year professional education sequence. An integral part of the program was the implementation and utilization of self-instructional modules. These modules provided the preservice teachers with competencies which were felt to be the basic elements needed in the repertoire of every teacher. The Program Coordinator wrote a brief position paper on the preparation and design of a self-instructional module for the use of teachers involved in the program.

An outline of logical sequence to use in designing a module are: (1) preparation of a comprehensive list of broad objectives. These objectives or terminal goals should encompass the general concepts, understanding, knowledge, and appreciation that a teacher wishes each student to possess; (2) the establishment of "behavioral objectives" from the list of broad objectives. A behavioral objective is a statement describing what the student is expected to be able to do after instruction; (3) with the behavioral objectives delineated, the next task is to establish performance standards. This involves the examination and specification of criterion levels of behavior for each objective. Performance standards would enable the student to know the minimal levels of competence he is expected to attain and would aid in evaluating the individual student's performance; (4) arrangement of learning activities for mastering the objectives. The methods and supporting media selected should be varied. One means of helping the student in areas where his knowledge or skill is insufficient would be the provision of guide or resource skills for inquiry activities. The acquisition or development of learning materials to facilitate individualized study will be necessary. Resource staff members should be available as consultants in the developmental stage and at other

levels to expedite implementation of the module.

Descriptors:
Independent study; Teacher education; autoinstructional aids.

Hurst, Joe B.
"Competency Based Modules and Inquiry Teaching." *The Journal of Experimental Education,* XLIII (Winter, 1974), pp. 35-39. (AdeM)

This is a study on the training of classroom teachers who could promote and sustain inquiry learning with children in elementary schools. It had for its purposes the development, field-testing and reaction of instructional materials and activities for pre-service training in inquiry; the determination of the degree to which subjects achieved a set of stated instructional objectives; and the comparison of the effects of two different classroom arrangements (individualized and group instruction) on the knowledge, skills, and attitudes of elementary teacher trainees.

Sixty students, predominantly juniors majoring in elementary education at the University of Toledo, participated in the study. The subjects were randomly assigned to one of the three experimental groups (individualized, group and control). Three instructional modules designed to meet specific behavioral objectives and other instructional materials including reading, films, videotaped lessons and other supplemental materials were employed in the two treatment groups. The modules developed for the study were designed to include several major components making up competency-based learning packages. In treatment group I the modules were used as learning guides and subjects worked individually at their own rate. Treatment group II used the modules as a syllabus for the course and as a guide for classroom and out-of-class activities. A pretest and posttest treatment and control group design were used to analyze the subjects' mean scores as a measure of knowledge.

The following instruments were administered to each subject in the three experimental groups: (1) a criteria-referenced pretest and posttest on knowledge skills in inquiry teaching, (2) pretest and posttest questionnaire on attitude toward inquiry teaching, and (3) pretest and posttest questionnaire for preferences toward a directive-indirective style of teaching. Results of the study showed (1) a significant increase in the achievement of students in both treatment groups; (2) significant gains in the treatment subjects' attitudes toward inquiry teaching; (3) a significant decrease in treatment subjects' preference for a directive teaching style, and (4) no significant differences between subjects' knowledge, attitudes, and preferences in the two treatment groups.

Descriptors:
Inquiry teaching; Elementary school teachers; Teacher education; Individualized instruction; Group instruction.

Mitchell, James V., Jr. and Others
"A Terminal Individualized Instruction Program for Prospective Elementary Teachers." *The Journal of Teacher Education,* XXI (Fall, 1970), pp. 362-365. (AdeM)

At the College of Education, University of Rochester, 34 prospective elementary school teachers participated in an experimental course which required the preparation of a "contract" with their instructor in which each student would: (1) identify an area of perceived deficiency in the student's preparation for teaching; (2) establish a set of objectives designed to remedy or solve this deficiency; (3) outline the specific kinds of activities that would help attain these objectives; and (4) describe the evaluation procedures that would be used to test the attainment of the objectives. Participants were encouraged to engage in any and every kind of activity they thought might be helpful to them in pursuing their objectives. These included directed reading appropriate to topic, interviews with successful teachers and/or administrators, case studies, observation of children and classrooms, additional practice teaching experiences and development and collection of curriculum materials.

At the end of the course the group was asked to complete a course evaluation questionnaire. The general reaction seemed to be very positive: 97 per cent felt that in terms of their present needs and professional goals the course had been valuable, and 35 percent saw it as very valuable; 59 percent estimated that the gains made in knowledge, understanding, and/or professional skills was greater than in the average course, and 29 percent saw them as average. The strength of the course most often mentioned was the fact that the topic chosen for study was of direct relevance and personal concern to the student involved. Overall student reaction to the course indicated that individualized instruction courses of this type should be available to students on a much wider basis.

Descriptors:
Individualized instruction; Student teaching.

Published Reports

Baird, J. Hugh and Others

The Individualized Secondary Teacher Education Program at Brigham Young University. M. Step Monograph Number 2. Multi-State Teacher Education Project. Baltimore, Md., Salt Lake City: Utah State Board of Education, 1968. 38p. ED 025 455 (AdeM, PCF)

Approximately 60 students have completed the individualized secondary teacher education program at Brigham Young University during its four-semester pilot period. Trainees are required to achieve the program's behavioral objectives which have been arranged in 11 units: administrative aspects of teaching, behavioral objectives, instructional materials and equipment, teaching methods, human development, microteaching, learning, curriculum preparation, student management, student teaching and affective behaviors. Phase I is a noncoursed, integrated presentation of academic content. After being pretested, a student and a counselor (one of a team of instructors) select from the syllabus those learning activities which will help the student exhibit terminal performance specified in each objective. Each student is teamed with one or two others in his subject matter specialty and together they write behavioral objectives and design and prepare learning activities and pre and posttest instruments (some of these materials completely programmed) to be used when they student teach. During this period they observe in the classroom in which they will student teach as a team (phase 2 of the program). Students do microteaching to improve needed teaching behavior and perform interaction analysis of their own and other's teaching sessions. (Included are the behavioral objectives identified for each of the 11 units of the program).

Descriptors:
Behavioral objectives; Class management; Course content; Curriculum development; Educational equipment; Human development; Individualized curriculum; Individualized instruction; Instructional innovations; Instructional materials; Learning; Microteaching; Research education; Program descriptions; Secondary school teachers; Student teaching; Teacher education; Teacher education curriculum; Teacher role; Teaching; Teaching methods; Team teaching.

Burke, Caseel

The Individualized Competency-Based System of Teacher Education at Weber State College. Ogden, Utah: Weber State College, March, 1972. 37 p. ED 063 276 (AdeM, PCF)

This report presents an overview of the background, change agents, structure, and operation of the Individualized, Performance-Based Teacher Education Program developed at Weber State College, Utah. The structure of the program was based on behavioral objectives, learning experiences, competency assessment, and application. The individualized instructional module was used as an effective learning instrument. The Weber Individualized Learning Kits (Wilkits) formed the basis of course blocks. Related course blocks were organized into systems for preparing elementary and secondary teachers. Each Wilkit was a learning activity divided into eight sections: title, introduction, content, preassessment, behavioral objectives, learning experience, self evaluation, and proficiency assessment. In 1970 an evaluation specialist was added to the staff for one year. Data were collected from students and faculty; tentative observations resulted.

Observations included: (1) Both students and faculty are working harder than under the previous system; (2) students are learning more; (3) there is a friendlier, more cooperative student-faculty relationship; (4) students are accepting responsibility for the decisions concerning their own preparation; (5) students work to achieve competency in the absence of grades; (6) students and faculty can adjust effectively to new behavior patterns; (7) public school teachers and administrators show enthusiasm for educational innovation. The program received the Distinguished Achievement Award for 1971 from the American Association of Colleges for Teacher Education.

Descriptors:
Educational innovation; Performance-based teacher education; Performance criteria; Performance specifications; Teacher education; Teacher programs.

Carswell, Ronald J.C. and Kurfman, Dana C.

Differential Effects of Self-Contained Teacher Education Kits on Pre and In-Service Social Studies Teachers. New York: American Educational Research, February, 1971. 19p. ED 049 957 (AdeM, PCF)

Three five-hour kits of self-contained materials: (1) using simulation to involve students (Simulation kits); (2) using media to stimulate inquiry (Media Kit); and (3) using evaluation to improve instruction (Evaluation kit), were field tested in sixty-four pre-service and in-service training programs. The kits were based on successful teaching strategies in the High School Geography project course, Geography in an Urban Age. Each kit had a sequence of activity, analysis of the activity and the application of the analysis to other teaching situations. It also included an instruction guide, participant's manual and supporting media such as slides, maps and video tapes. Statistical comparisons of four groups of sixteen programs were made, one of which was a control group.

From analysis of Basic Attitudes Towards Social Studies (BASS) and questionnaire results, the following conclusions apply to the three Teacher Education Kits: (1) although the Simulation kit did not appear to be more effective than other treatments in influencing attitudes toward the items listed by the BASS, both participants and instructors felt it to be more interesting and useful than other approaches, (2) the Media kit appeared to be more effective with Geographic Education classes than

with preservice social studies groups, (3)the Evaluation kit seemed to be most effective as the results on the BASS differentiated between the treatment and control groups. The differences between the groups appeared to center mainly on an increased awareness that objective tests can measure most of the cognitive and affective objectives of teaching. The instructors and participants rated the kit as interesting, informative and useful. A major feature of the three teacher education kits is the high degree of involvement required by the participants and the consequent momentum generated by the class.

Descriptors:
Evaluation techniques; Geography instruction; Instructive methods; Inquiry training; Inservice teacher education; Multimedia instruction; Preservice education; Protocol materials; Simulation; Social studies; Teacher attitudes; Teacher education; Teaching methods; Teaching techniques.

Froley, Lawrence E. and Vargas, Ernest A.

The Measurement of Instructional Accomplishments. Morgantown: West Virginia University, March 16, 1972. 24 p. ED 064 386 (AdeM, PCF)

Instructional System Technology in recent years has been characterized by an increase in individualized instruction and modularization of the curriculum. In traditional systems the learners are forced to take blocks of instruction the size of entire courses which are much too large. The courses can now be broken down into conceptual subdivisions and these in turn into series of modules. Each module has clearly stated behavioral objectives regardless of the nature of the intellectual performance prescribed in it. The test items of the module are derived from the objectives rather than from the instructional materials currently in use to attain them.

The instructional materials for a module may be offered on different tracks which feature different levels of abstraction thus accomodating the different learning characteristics of individual learners. Most instructional system developers today are looking ahead to a time when good modules will be developed at many localities and circulated widely for use at various institutions. There is a growing need for a valid and widely applicable method of evaluating modules of instruction. Three basic criteria are relevant to the evaluation of a module of instruction: (1) the amount of learning that results; (2) the dollar equivalent cost to the instructional organization of providing the module; and (3) the amount of learner time consumed by interaction with the module. An example is given comparing three different versions of a module.

Descriptors:
Behavioral objectives, Comparative analysis; Cost effectiveness; Evaluation methods; Individual characteristics; Individualized instruction; Instructional materials; Interaction; Schedule modules; Standards; Testing; Time factors (learning).

Geis, George L. and Chopman, Reuben

Knowledge of Results and the Possible Reinforcers in Self-Instructional Systems. Final Report. Ann Arbor: Center for Research on Language and Language Behavior, Michigan University, Jan. 1971. 81p. ED 049 464 (AdeM, PCF)

Knowledge of results (KOR) is most frequently cited as the reinforcer in self-instructional systems. The printed answer in a programmed text is supposed to reinforce the response the student gives previous to observing that answer. Some other possible reinforcers were briefly discussed before the literature on KOR in self-instruction was selectively reviewed.

The review was organized as a search for evidence that KOR might appropriately be called a reinforcer. Studies comparing programs with and without feedback were examined; the weight of evidence from this global studies was that feedback did not enhance learning as measured by immediate post-test scores or by retention tests. In at least one case there seemed to be a decrement in performance traceable to the presentation of feedback. One recent and sophisticated study did show clear advantages for feedback and thereby implied that KOR may be a reinforcer. Studies in which "schedule of reinforcement" were varied similarly failed to show effects that would be expected if KOR were acting as a reinforcer. Our major study involving delay of KOR did report the effect expected when delivery of a reinforcer is delayed. Other studies on delay do not replicate this finding. Finer grained analyses of students' behavior and KOR begin to reveal specific conditions under which KOR seems to be acting as a reinforcer. A few studies mentioned in the literature report on manipulation of subject and task variables and kinds of feedback.

The results of these and the results of studies in prompting vs. confirmation and student-controlled feedback suggest that KOR may well be a reinforcer when uncertainty, or confidence, or probability of emitting an incorrect response is high. It is clear that printed answer is not globally and automatically a reinforcer.

Descriptors:
Autoinstructional aids; Autoinstructional methods, Feedback; Literature reviews; Reinforcement.

Grinder, Robert E.
"Flexibility and Sequence: Educational Psychology and the Training of Teachers." Paper presented at the Annual Meeting of AERA, Minneapolis, March, 1970. 20 p. ED 040 937 (AdeM, PCF)

To increase the relevance of educational psychology, the School of Education at the University of Wisconsin now offers one credit, 5-week modules in its entire foundational area. The modules offer students a wide range of options and provide greater flexibility and manageability in subject matter presentations. Before the new program was initiated students took three semester-long foundation courses: school and society, learning, and human development. Three years earlier a staff and student committee began inventory of subject matter and development of the new program in which students may choose from among one-credit modular units in the same three foundation areas. Although a total of six to nine credits is still required, only one unit or credit must be completed in each of the three areas.

Two attitude surveys were administered by the committee (to 122 teachers completing their internship and to 266 students during their module orientation) to obtain an overview of what modular content might be and when modules might be offered relative to student teaching methods courses. Administrative concerns which are still being explored in the formative stage of the program include the danger of over fractionation, the need for continuity across modules, and the problem of disseminating information to prospective teachers about what to expect from modules, which to choose, and when to enroll.

Descriptors:
Educational psychology; Individualized instruction; Teacher education; Teacher education curriculum.

Indiana. Ball State University
An Individualized In-Service Teacher Education Program. Report of the Triple I Project. Muncie, Indiana: Teachers College, February, 1972. 31 p. ED 059 162 (AdeM, PCF)

The Indianapolis Individualized In-service Project (Triple I Project) was designed to relate to the perceived needs of the teachers of inner city programs. Two Indianapolis Inner City Elementary Schools, Schools A & B, were the target area schools for the Triple I Project. A pattern was established for determining the problems encountered by teachers.

Two approaches were utilized. The first approach consisted of the administration of an instrument entitled "In-service Interest Survey." This instrument contained 40 statements in various categories which were aimed at areas of difficulty commonly reported by teachers and researchers to be areas of difficulty for teachers of inner city schools. As check against the validity of the In-service Interest Survey, interviews were conducted with each teacher in both schools. All items declared by the teachers to be important were then categorized into four modules: (1) Motivational Aspirational, (2) Behavioral, (3) Slow learner, (4) Instructional. A fifth module, Organizational, for the two principals, completed the identified areas of concern. The modules were conducted in both group and individual sessions. Consultants from Ball State University worked during one school year with the teachers, individually and in small groups, on topics declared to be of interest. The consultants also coordinated closely with the two administrators involved, keeping them informed of the areas of concern and study as it evolved in each module. Informal and continual evaluation by consultants, participants and the 2 principals was a characteristic of the workings of the various modules and was supplemented by a specially designed instrument. In-service Inventory measured teacher attitude towards the Triple I Project and other in-service projects.

While the Triple I Project was considered a success, one of the most significant findings was that teacher attitude appeared to be the greatest determinant of success or failure in this project, as judged from the teacher's own perception.

Descriptors:
Elementary school teachers; In-service teacher education; Teacher attitudes; Teacher education; Urban schools.

Kennedy, John J. and Others

The Effectiveness of Two Interaction Analysis Instructional Modules within an Inservice Setting. Knoxville: Bureau of Educational Research and Service, Tennessee University, March, 1969. 119 p. ED 030 600 (AdeM, PCF)

An experiment was conducted to determine the efficacy of a self-instructional inservice program in Flander's system of interaction analysis. Subjects (teachers in nine elementary schools in Tennesee) audiotaped three 20-minute lessons in either mathematics or social studies each week of the 18-week study. The instructional treatment, a one-hour faculty meeting each week, began in the fourth week. Three schools received the self-instructional program, three augmented the program with tele-lecture presentations by a college instructor, and three served as controls. Audio tapes produced by 90 teachers (randomly selected - five taping mathematics lessons and five taping social studies lessons from each school) were collected and rated by a trained staff. Eight Flander's quantitative indexes plus scores on an interaction analysis achievement test served as dependent variables.

Results indicated that participants had acquired at least an elementary knowledge of interaction analysis, but differences between instructional treatments provoked greater indirect influence or student involvement. A test instruction questionnaire measuring teacher reaction to the project revealed diversity of opinion. Included are discussions of the findings, a 31-item bibliography, and copies of the questionnaires and achievement test.

Descriptors:
Elementary school teachers; In-service teacher education; Interaction process analysis; Training techniques.

Pyatte, Jeff A.

The Effectiveness of Performance-based Training Modules on Planning and Presenting. Pensacola: University of West Florida, 1972. 26 p. ED 062 299 (AdeM, PCF)

This study aims to measure the effectiveness of two performance-based teacher training modules used with perservice and inservice teachers and to determine whether these two groups of teachers reacted differently to the modules.

Three classes of students enrolled in Designs for Teaching at the University of West Florida provided the group of preservice teachers used in the study. Fourteen teachers enrolled in an off-campus course for teachers who were supervising student teachers made up the group of in-service teachers. Criterion-referenced tests were used to determine whether the objectives of the modules had been achieved by the students. One test was constructed for each module. A questionnaire was developed to elicit a reaction to the performance-based module. Part 2 of the questionnaire was designed to elicit response to the same items, using the same scale; however, a space was provided for a constructed response to the statement "Please explain why". Part 1 was to be completed in class and part 2 was to be completed out of class. A simple single criterion evaluation design was used to determine the effectiveness of the two teacher-training modules. The design was intendonly to yield a rough appraisal of effectiveness.

The results of this study indicate at performance-based modules can be used effectively with both preservice and inservice teachers. When used with inservice teachers, the utility of the concepts and skills should be emphasized. A mixed method of implementation allowing some students to work outside class and others in class, under supervision, should be used with both preservice and inservice teachers.

Descriptors:
Inservice teacher education; Lesson plans; Performance criteria; Preservice education; Teacher education.

Southworth, Horton C.

A Model of Teacher Training for the Individualization of Instruction, Educational Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Final Report. Pennsylvania: School of Education, Pittsburgh University, 1968. 210 p. ED 025 495 (AdeM, PCF)

The Model of Teacher Training for the Individualization of Instruction developed at the University of Pittsburgh, is predicated upon five requirements for training teachers: (1) academic education; (2) extension of professional knowledge base; (3) teacher competencies; (4) guidance of trainees; and (5) clinical settings, Instruction is individualized (consists of planning and conducting, with each pupil, programs of study and day to day lessons that are tailor-made to suit his learning requirements and his characteristics as a learner) and implemented through the instructional mode (a basic plan to restructure all teacher-learner experiences to include specifying learning goals, assessing pupil achievements of learning goals, diagnosing learner characteristics, planning long term and short term learning programs with pupils, guiding pupils in their learning tasks, directing off-task pupil behavior, evaluating the learner, employing teamwork with colleagues, enhancing development).

Points of entry into the program differ, depending on an individual's prior training and experience. Guidance permits varied coursework and rate of completion of the necessary 32 learning units. In the clinical setting, guidance procedures call for extending individualization beyond the learning of concepts and skills without the development of competencies in self-direction, inquiry, and personal social characteristics.

Descriptors:
Academic education; Admission criteria; Behavioral objectives; Educational diagnosis; Educational specifications; Elementary school teachers; Evaluation; Field experience programs; Guidance; Individualized instruction; Individualized programs; Ma-

thematics curriculum; Models; Professional education; Program evaluation; Program planning; Science curriculum; Task analysis; Teacher education curriculum; Teacher selection.

Steen, Margaret T., and Others
A Program of Teacher Development for a System of Individualized Education. Washington, D.C.: American Psychological Association, September 2, 1969. 69 p. ED 034 729 (AdeM, PCF)

An inservice development program was designed to insure that teachers acquire skills crucial for the operation of an individual program, that these skills be acquired in a relatively short time, and that transfer be made to the classroom setting. The program consisted of (1) 2 preservice conferences covering information on materials organization, room arrangement, computer services, individualizing the student's programs, tutoring and counseling skills and (2) inservice consultant services. Behavioral objectives to be achieved in the conference setting were written and performance criteria developed to define desired classroom behaviors.

Materials were presented as modules consisting of sets of objectives and activities which were completed independently or with partners or small groups. They included written material, filmstrips, slides, and problem-solving games. Training conference activities incorporated the social learning techniques of scheduled reinforcement, imitation, and successive approximations. The use of consultants as change agents provided the means for individualization of the effective variables. Consultants visiting a teacher's classroom identified and reinforced some desired behaviors and aided in the acquisition of others through such techniques or reviews and supplementation of conference materials, reinforcement of approximation of appropriate behavior, and several types of modeling procedures.

Descriptors:
Behavior changes; Individualized instruction; Inservice teacher education; Reinforcement; Teacher behavior; Teachers; Teacher supervision.

Thurber, John C.
Individualized In-service Teacher Education (Project In-step) Evaluation Report, Phase I. Boynton Beach, Florida: Palm Beach Country Board of Public Instruction, October, 1968. 44 p. ED 033 905 (AdeM, PCF)

During the early fall of 1968, 320 Palm Beach County Teachers were pre-tested and placed in various prescribed instructional groups. There were 4 instructional groups and each group received varying amounts of instruction depending upon the proficiencies displayed by the pre-test. Those teachers who were placed in Instructional Group I served as a control group to assist in measuring the effectiveness of the program. The teachers were instructed by means of video tapes, self-study programmed text materials, classes conducted by the In-Step Instructors in which the participants actually used the AAAS classroom materials. At the end of the academic year 1968-69 the teachers were posttested along with random selection of matched students of teachers outside the program. The following instruments were used for evaluation: for teacher participation – pretest (elementary science teacher inventory), posttest (elementary science teacher inventory), teacher attitude and opinion survey (Project In-Step Teacher Questionnaire); for the student participation – process measure (observation) and student attitude (0. sort).

Analysis of data showed that the "In-Step Approach" is a successful method for conducting in-service training of teachers. The conclusion is based on (1) the gain in the mean scores of Instructional Groups II, III and IV, due to the instructional program, (2) the generally favorable attitude of the teachers who participated or reflected on the questionnnaire, (3) the cost effectiveness comparison between training groups of 300 teachers in AAAS Science and In-Step materials as compared with traditional approach to training a like number of teachers, (4) indirect measure of teacher effectiveness in instructing students in the materials and methods gained from participating in Project In-Step training. Students of participants showed a difference in the mean on the observation process measure when compared with a matched control group, (5) a moderately favorable indication of a difference in the attitude towards science in students whose teachers were trained in AAAS Science via the In-Step program compared to a random sampling of the other students.

Descriptors:
Elementary school science; Elementary school teachers; Individualized programs; Inservice teacher education.

Thurber, John C.

Individualized In-Service Teacher Education (Project InStep), Evaluation Report, Phase II. Boynton Beach, Florida: Palm Beach County Board of Public Instruction, 1970. 20 p. ED 072 707 (AdeM, PCF)

Phase II of Project In-Step was conducted to revise instructional procedures and materials based upon feedback provided from Phase I and to field test the revised instructional program by implementing it with additional groups of teachers. The method (developed during Phase II) utilized a multimedia approach. The curriculum which served as the vehicle for developement and refinement of the model was the contemporary elementary science program, Science-A Process Approach (AAAS Science). Teachers in two Florida Counties were pretested in the early fall of 1969 and placed into various instructional groups. Teachers were instructed by means of videotapes, the action handbook, a programmed self-study text and classes in which they actually utilized AAAS classroom materials.

At the end of the training sessions 511 elementary teachers were post-tested with the Elementary Science Teacher Inventory. During the 1969 70 academic year the operational objectives for Phase II were met and the field-testing portion of the evaluation adds further credence to support the concept that the In-Step Approach is a valid method for the conducting of in-service education. This conclusion is based on (1) the results obtained from Phase I, (2) the gain in the mean scores of the instructional groups of the Elementary Science Teachers Inventory, (3) the fact that of all the instructional groups tested in two years of operation only one did not obtain results statistically significant at the .01 level. Of the approximately 831 teachers (Phase I and II) trained with In-Step Materials 89% have modified their classroom behavior somewhat, and 69% have made more than nominal changes in their classroom behavior.

Descriptors:

Elementary school science; Elementary school teachers; Individualized instruction; In-Service teacher education; Models; Multimedia instruction.

Thurber, John C.

Individualized In-Service Teacher Education (Project In-Step), Evaluation Report, Phase III. Boynton Beach, Florida: Palm Beach County Board of Public Instruction, December, 1971. 40 p. ED 059 161 (AdeM, PCF)

The purpose of Project In-Step was to develop a viable model for individualized, multimedia inservice teacher education programs. In order to accomplish the goal of the project, the program was ordered into three time segments known as Phase I, II and III. Phase I had as its goal to develop and field test the model. The objectives for Phase II were to revise instructional procedures and materials based upon feedback provided from Phase I and to field test the revised instructional program by implementing it with additional groups of teachers. The rationale for Phase III was to see if the model would be successfully transferred to an area other than teaching teachers to teach elementary science. In addition to working toward this goal of model transference, the In-step staff decided to develop the vehicle for field testing the model during this phase. The vehicle was a course in management of Instructional Systems. The In-Step model was then implemented to teach this course. During January through May of 1971, approximately 85 teachers in Palm Beach County took part in this facet of the program. Instruction in Phase III was individualized to a much greater extent. This was made possible by pre-assessing participants before they were engaged in the various sections (modules) of the course in Instructional Systems Management.

The results obtained from field testing during Phase III showed it to be a successful effort. This premise was based upon: (1) approximately 93% of the participants of Phase III developed an instructional system of their own; (2) 100% of the participants completed at least one of the modules with a mastery of its content; (3) approximately 98% of the teachers involved in Phase III indicated they had changed their behavior in the classroom and they would implement skills, materials, and new techniques which they had acquired. The successful conclusion of all three phases of Project In-Step has provided a way to offer in-service teacher education that is effective, economical and efficient. Furthermore, the development of a concise, sequenced course in the management and instructional systems was accomplished. As the implementation of the skills and knowledge gained in the course is based upon assessing the needs of the students, it is a vital step in teaching teachers one way in which they may humanize their curricular offerings, while maintaining some structure within their program.

Descriptors:

Individualized programs; In-service teacher Education; Multimedia instruction; Teacher education; Teaching models.

Ziebarth, Raymond A., and Jones, Virginia C.

Secondary Education Individualized Instruction Project. A Curriculum/Instruction Study Project. SEIIP Report No. 3. Omaha. Nebraska University, August, 1971 77 p. ED 046 002 (AdeM, PCF)

This project was an attempt to determine the effect of placing one course in the Secondary Teacher Preparation Program at the University of Nebraska at Omaha on a competency-based, individualized mode of instruction. The course, SED 351-Teaching in Secondary Schools, is the mid point in the preparation of secondary teachers in the Department of Secondary Education. The project was conducted during the period of July 1970 through May 1971. The development of objectives, determination of course content, and preparation of packets took place during July, August and September of 1970

The course material was divided into 12 units. The package for each unit contained the following elements: student directions, statement of objectives, assignment sheets, supplementary reading materials and criterion check. The materials were field-tested during the Fall semester of 1970-1971 academic year. The major management and record keeping procedures were also developed during that period. During the Spring of the 1970-71 school year, a study was conducted in which student achievement and attitudes under the individualized and traditional methods of instruction were compared. No significant difference was found in achievement gain between both groups; but students in the individualized group were found to have a significantly more positive attitude toward the course.

Descriptors:

Activity units; Course objectives; Course organization; Education courses; Individualized programs; Performance criteria; Preservice education; Secondary school teachers; Student evaluation.

Peer Training

Periodical Articles

Selber, Edith M. and Peterson, Kenneth

"Collaborative Practices between School Districts and a College in Retraining Teachers for Quality Science Education". *Science Education,* LV (April, 1971), pp. 115-123. (AdeM)

The San Jose State College, in collaboration with 6 school districts, conducted a one year pilot program to understand the nature of inquiry learning through activities that combined scientific and quantitative data essential for comprehensive understanding of science and to assist teachers in designing and conducting inquiry-centered lessons applicable to children's varying intellectual levels. Selected teachers from the six school districts who acted as resource or laboratory personnel were retrained in a 2-week workshop followed by 6 - five-hour weekly sessions alternately scheduled for math and science. The college staff shared time for formal instruction and field supervision in respective schools within a 25 mile radius of the college. Formal instruction directed teachers to consider the nature and structure of science and math, the nature of inquiry teaching and learning, the content of the new program and the responsibility of resource teachers for improvement of instruction. Time periods were designated for supervision of classroom teaching activities and consultation with college personnel. After each teacher's self-evaluation and the college supervisors' appraisal, episodes for modification of teaching styles and subsequent exercises were designed. The supervisor recorded research data that contributed to the specific problems of teaching, analyzed publications and recommended materials that assisted the teachers. Resource teachers were given release time to meet with college staff for subsequent planning of work, demonstrating inquiry lessons in different grades, observing other resource teachers and securing materials and equipment from community centers. Demonstration lessons by a resource person were planned with the peer teacher to accommodate the design commensurate to intellectual readiness of pupils. After each presentation, the activity was critiqued by the teacher, a college supervisor, the principal or the curriculum coordinator. Decisions were made jointly on the content and skill experiences to be pursued by the peer or resource teacher.

Results of the project showed that the one to one interaction process was a successful, relevant procedure for the re-education of teachers for several reasons: the friend, partnership, fellowship feeling enabled resource teachers to adjust their experiences to a peer teacher's flexibility to change, or ability to guide inquiry learning and a comprehension of the nature and meaning of science.

Descriptors:
Teacher education; Instructional improvement; Educational research.

Winer, Ronald M.

"The Crucial Factor in Urban Education: An Intensive Teacher-to-Teacher Program for Urban Schools." *The Journal of Teacher Education,* XXXI (Summer, 1970), pp. 240-243. (AdeM)

An intensive teacher-to-teacher training program on pilot basis at the Henry Bruckner Junior High School in the Bronx is presented as a possible model on which to build teacher training practice for success in urban school settings. The total school community was involved in the selection of the teachers who could serve as teacher trainers. Final selection was made by the principal and departmental supervisors on the basis of the recommendations and in accordance with the contractual provisions within which the school functions.

Essential criteria for selection included extensive successful teaching experience in the school; demonstrated ability to achieve a high degree of positive rapport with students, teachers, supervisors and parents; some advanced study in the area of supervision; and specific strengths and skills within the academic area. The teacher

trainer was a successful model in the urban classroom and, as such, was more readily accepted by new teachers. His program allowed for extensive visitation in the classroom of the new teacher far beyond the ability of the formal supervisors. Because he has no connection with the rating process, he was able to work intensively without the apprehensions that accompany similar activity on the part of other supervisory personnel. Since objective reality within the framework of new teacher observation was considered to be of crucial importance to the success of the teacher-trainer role, an official class assignment was included in the program so that an intensive study might be made in this area. Frequent data relating to actual teacher-to-teacher activities during program operation revealed an average of 42 intervisitations and post observation sessions for each participant. This did not include group conferences involving personnel of such supportive services as guidance, attendance, secretarial, behavior and outside agencies. The teacher-to-teacher training program was carried on intensively as an adjunct to the normal supervisory training activities. It in no way diminished the role of formal supervision but sought instead to provide an additional means of obtaining educational excellence.

Descriptors:
Urban education; Teacher education; Teacher educators.

Case, Chester and McCallum, Neil
Peer Teaching at Ohlone. Fremont, California: Ohlone College, 1971. 12 p. ED 052 785 (AdeM, PCF)

As an initial step in developing a long range comprehensive program for faculty development, the faculty and administration of Ohlone College in Fremont, California conducted a 4-week Sequenced Peer Teaching (SPT) workshop. Sequenced Peer Teaching is a program designed to bring faculty colleagues together for the development of teaching. Structurally, the program rests on the small group. The basic process is the teaching of a sequence of assignments by individual participants to a "class" of peers. The teaching is video taped and replayed for group critique. The assignments move from brief, simple initial presentations to longer, complex presentations. SPT emphasizes teaching to peers in a setting less complex than that of the classroom. In the SPT group, threat and anxiety are minimized, as interaction stresses candor. Participants include faculty, administrators and a facilitator, usually from outside the college.

A basic premise was that the presenter should have maximum freedom within an assignment. Group discussions dealt with relationships with students, communication, instructional strategies, content, and the self concept of the instructor. The different phases of the project and participants' reactions to them are explained. The project was judged successful by the participants, who became aware of their own teaching and more self-critical of classroom work, and who developed feelings of rapport across departmental lines. Vigorous faculty leadership is needed to launch and maintain similar projects.

Descriptors:
Faculty evaluation; Instructional improvement; Senior colleges; Peer teaching; Teacher evaluation; Teacher improvement.

Hernandez, Dolores F.
The Progress of Science Education in the Philippines: 1963-1973. Quezon City: University of the Philippines Press, 1975. Professional Chain Lecture Series. Monograph no. 6. 31 p. (PCF)

The paper presents a broad view of the various aspects of science education in the country and provides data showing how the Philippines compares with other Asian countries. The first part presents an overview, supported by quantitative data, of developments in science education in the Philippines in the context of the Asian regions. It deals mainly with the organization and structure of science education at the primary and secondary levels of education; the tertiary level was cited only as it pertains to the education of science and mathematics teachers.

Also discussed was the significant role played by scientific associations and societies, national research councils (the NSDB for the Philippines) and such organizations as the Regional Center for Education in Science and Mathematics (RCESAM), UNICEF and UNESCO in upgrading science education in the Asian Region through the many stimulating conferences they supported and the projects they have assisted through consultant services and publications. In the Philippines, UNESCO has assisted the UPSEC and the Science Education Project of the Philippines (SEPP). The SEPP is an integrated national project which brings together, in a well coordinated manner, the various resources of funding agencies, academic institutions, the DEC, the NSDB and other agencies. In short, the program integrates various aspects of a science education program including teacher education, research, curriculum development, equipment distribution, administrative support and funding.

The second part of the paper deals with some consideration on the qualitative aspects of science education, with particular reference to those areas which, in the Philippine situation, required further study and development. These areas were on curriculum development, research, teacher education and the integration of science at the school level and the education of teachers at these levels.

The various phases of science education in the Philippines have been adequately coordinated and even integrated through the interest and efforts of government agencies and units such as the NSDB, DEC & UP. Funding agencies have likewise cooperated by dealing with science education projects not in a piecemeal fashion but in the context of an overall national program. Recently these efforts have been strengthened and accelerated by the Educational Development Projects Implementing Task Forces (EDPITAF) of the DEC.

Descriptors:
Teacher education; Instructional improvement; Educational research.

Institute for Educational Development

An Evaluation of the Program "Supportive Training for the Inexperienced and New Teachers" (STINT) in New York City Schools. New York: Institute for Educational Development, 1970. 93 p. ED 051 087 (AdeM, PCF)

The STINT Teacher Training Program was designed to provide crucial support for new and inexperienced teachers in urban schools using skilled and experienced teachers who were given 100 per cent released time to work with the participants on a ratio of approximately one to nine. The program was concentrated in the ghetto areas of Manhattan, Brooklyn, and the Bronx. There were six major goals: (1) to provide a variety of supportive services; (2) to develop greater teacher competence; (3) to decrease staff turnover; (4) to help teachers develop a more effective methodology; (5) to provide an improved learning situation; and (6) to develop a more sensitive and highly developed response to urban ghetto classroom situations. Data collected from teachers in the program were compared with data from non-participants in similar situations.

The results showed that principals of the STINT schools involved in the study rated their teachers more positively on a ten-item questionnaire than did principals of the non-STINT schools. However, the differences in the ratings of the two groups were slight, and not statistically significant. STINT teachers' attitudes – as measured by the Purdue Teacher Opinionnaire – were more positive than those expressed by non-STINT teachers responding to the instrument. On measures dealing with job satisfaction and comfort on the job (i.e., teacher-attitude data and available teacher-turnover data) STINT teachers showed clear superiority. However, this superiority was not found on measures reflecting skill development. It was felt that one year did not give sufficient time to achieve both goals, and consequently further studies of both groups were recommended.

Descriptors:
Beginning teachers; Disadvantaged youth; Inservice teacher education; Teacher education; Teacher improvement; Teacher persistance; Urban education; Urban teaching.

Weingarten, Kenneth and Others

The Development of a Low-Cost Performance-Oriented Training Model. Alexandria, Virginia: Human Resources Research Organization, 1970. 13 p. ED 050 313 (AdeM, PCF)

The paper describes a training model featuring peer instruction in a functional job-simulated context. Six principles comprise the training model's instructional "policy": performance orientation, learning in a functional context, self-pacing, insistence on mastery, rapid and detailed feedback to trainees as to the accuracy of their learning, and rapid and detailed feedback on adequacy of the instruction.

The course is organized around a series of job-performance stages representing the various duties that must be performed by a person competent in the job. At each stage, an advanced trainee performs all job duties under the supervision of an instructor, while a trainee who is new observes the job-performer at his work. After familiarization with the job duties at this stage, the trainee will go on to learn the skills necessary to perform the job. His teacher at this period is the trainee whose job-performance he observed. When both trainee and trainer are convinced that the trainee has mastered the skills necessary to perform a given task, they report to an instructor for the trainee's proficiency test. The instructor scores the trainee on his ability to perform the task on a pass-or-fail criterion. The process of learning and testing is repeated until the trainee passes all proficiency checks appropriate to the stage. After he has passed all proficiency checks a trainee is scheduled for job-performance. An incoming trainee will observe his performance and the training cycle is repeated with the former trainee assuming the role of peer trainer. The entire cycle of observation, learning, job performance, and teaching is repeated until the trainee completes the requirements of each stage in the curriculum.

Descriptors:
Peer teaching; Teacher role; Training techniques.

Books

Allen, Dwight and Ryan, Kerin
Microteaching. Reading, Massachusetts: Addison – Wesley, 1969. 151p. (AdeM, PCF)

In essence, this book is meant to be both an introduction to microteaching and a progress report on how far it has come to date. Fundamentally, microteaching is an idea, at the core of which lie five essential propositions. First, microteaching is real teaching. Second, it lessens the complexities of normal classroom teaching. Third, it focuses on training for the accomplishment of a specific task. Fourth, it allows for the increased control of practice. And fifth, microteaching greatly expands the normal knowledge-of-results or feedback dimension in teaching. The basic sequence is teach-analyze-reteach.

The main body of the book is a description and discussion of the components – skills approach, the elements of microteaching, microteaching and the pre-service training of teachers, the in-service uses of microteaching, microteaching in other settings, and research and microteaching.

In conclusion, the authors sound a note of caution to those who see microteaching as a final answer. The questions raised by microteaching far exceed the answers it has been able to supply. Microteaching currently has the same promise and the same danger, that newly devised research and training techniques have always had: the promise of opening entirely new avenues, perspectives, and alternatives to human exploration; the danger of locking in too early on a first alternative which arose purely out of chance and convenience. But it may have as strong an impact on education as the techniques of culturing bacteria did in medicine. In the history of many sciences the development of new technology has created new research possibilities. Micro-teaching may well be such a catalyst in education.

Descriptors:
Microteaching.

Shaftel, Fannie R. and Shaftel, George
Role-Playing for Social Values: Decision-Making in the Social Studies. New Jersey: Prentice-Hall, Inc., 1967. 431 p. (UP College of Educ.)

A comprehensive study on role-playing, one of the most recent and widely acclaimed approaches to teaching in the social science field, the book concentrates on the use of role playing to explore group behavior and the dilemmas of the child as he searches for his personal values. It gives a step-by-step description of role-playing procedures, an analysis of personal and group needs of children in today's society, a full-program of problem stories focused on education for social values and a detailed examination of the process of decision-making. Part I includes a theoretical discussion of curriculum and methods in the social studies that should be of interest to education, analyzes the place of interpersonal relations and social values in the social studies, discusses the development of self-concepts and group relations during childhood and show the importance of practice in decision-making. Part II are problem stories for role playing that center on typical dilemmas of childhood and adolescence. The stories provide simulations which, when explored through role-playing, enable young people to make trial decisions and to analyze the value underlying their behavior. By discussing the solutions to the dilemmas, the group is stimulated to choose between a social value and a personal interest. The outstanding feature of the book is the discussion of methods teachers may use to guide children in role-playing stories involving value dilemmas. The dramatic story situations provide motivation; role playing provides practice in decision-making; the discussion stimulates evaluations of behavior related to other individuals and to peer group.

Descriptors:
Role playing; Simulation; Teaching methods; Decision-making skills; Problem solving; Group relations; Social studies.

Stones, E. and Morris, S.
Teaching Practice: Problems and Perspectives. London: Methuen and Co. Ltd., 1972. 300 p. (UP College of Educ.)

The book brings together information about new developments which question the assumptions of traditional methods of organizing teaching practice and raise some fundamental questions concerning the theory of teaching in relation to practice. Part 1 discusses the problems connected with current approaches to practical teaching as they are found in most teacher education institutions in Great Britain. On the basis of a detailed examination of the present conception, rationale and operation of teaching practice, it concludes that the present system results in inadequate practical preparation of teachers. Current teaching practice leads to the widespread adoption by students of prevailing attitudes and teaching methods and stands in the way of development and innovation. It is suggested that the present emphasis on teaching practice in the preparation of teacher be abandoned and that a much wider concept of practical professional work be adopted, which would include the development of teaching skills within the college environment as well as the school. Part 2 deals with some of the most promising innovations in the field and examines in detail three major techniques for developing teaching skills within the college: interaction analysis, simulation techniques and microteaching. Part 3 brings together a selection of key articles, mainly from American sources not easily obtainable in Great Britain, which provide valuable background materials to the various themes discussed in Parts 1 and 2.

Descriptors:
Student teaching; Teacher education; Teaching methods; Simulation; Microteaching; Practicums; Interaction analysis.

Periodical

Ward, Beatrice A.
"Minicourses and Their Application to Teacher Education." *The Journal of Teacher Education,* XXV (Winter, 1974), pp. 344-349. (AdeM)

The Minicourse is a self-instructional teacher training package developed by the Far West Laboratory for Educational Research and Development. It is designed to provide teacher training which is self directed, self instructional and competency-based. The key characteristics of the Minicourse approach are: (1) it is a self contained training package which maybe undertaken on a flexible, individualized basis; (2) it is essentially self instructional; (3) it presents specific, observable, precisely defined teaching skills; (4) it is a training experience which includes a performance model of the skills to be acquired and extensive practice in an actual teaching situation; (5) it provides immediate individualized feedback to assist the teacher in self evaluation. Each minicourse utilizes a basic instructional model which is an adaptation and extension of the Stanford Micro Teaching Model.

There are four steps: first, trainees read about a limited number of specific skills that center on a particular area of competency; second, they observe examples of the skills; third, the trainees practice the teaching skills; and fourth, trainees refine their use of the skills through additional practice. The instructional skills presented in the minicourses cluster into a group of basic and related competencies called Competency Clusters – Cluster 1, Questioning/ Discussion; Cluster 2, Responding; Cluster 3, Management of independent, individualized learning; Cluster 4, Teaching reading; and Cluster 5, Teaching social studies. Patterns of Minicourse utilization in teacher training differ in terms of the training context. The timing of when a course is offered, the arrangements for microteaching and the like are indicated.

Minicourses maybe introduced in conjunction with preservice methods courses, either as supplements to the courses or in lieu of certain portions. The microteaching phase is then carried out with pupils being made available by cooperating public schools. Minicourses maybe incorporated into the student teaching experience. They maybe undertaken during in-service training as teachers feel the need to improve certain skills. Another possibility for inservice training is to offer a minicourse in conjunction with some larger school or district undertaking.

Descriptors:
Independent study; Teacher education; Self-evaluation; Microteaching.

Published Reports

Allen, Dwight W.

Micro-teaching, a Description. California: Stanford University, Sept. 1969. 128 p. ED 079 224 (AdeM, PCF)

Described is the use of micro-teaching in the Stanford teacher education program. Section 1 briefly introduces and provides a schedule for the 1967 micro-teaching clinic. Sections 2 and 3 provide descriptions of the 1965 and 1966 summer micro-teaching clinics, respectively.

Included are discussions of (1) background information on micro-teaching; (2) the preliminary planning, facilities, and personnel utilization; (3) the structure and format at the clinics, and (4) the evaluative data obtained during each year. Section 4 discusses (1) micro-teaching as a new approach for inservice teacher education; (2) the technical skills of teaching; and (3) developing specific teaching skills through micro-teaching. Tables of data for the 1965 and 1966 clinics are appended.

Descriptors:
Educational programs; Inservice teacher education; Instruction; Microteaching; Program descriptions; Skills development; Teacher education; Teaching skills; Behavior development; Internship programs; Teacher interns; Stanford teacher competence appraisal guides; Stanford University; Stanford teacher education program; California.

Borg, Walter R.

The Minicourse Rationale and Uses in the Inservice Education of Teachers. Berkeley, California: Far West Laboratory for Educational Research and Development, February, 1968. 28 p. ED 024 647 (AdeM, PCF)

This collection of materials reports the research and development of a series of inservice training "minicourses", short courses (about 75 minutes per day for 15 days) designed to teach specific teacher behavior patterns with the use of the microteaching technique, self-evaluation of video tape feedback, instructional films, and filmed illustration by model teachers. The main document reviews the instructional model on which the courses are constructed, defines and discusses the advantages of microteaching, and describes the scope and future plans for the minicourse program. It includes a 6-item bibliography and a comprehensive description and field evaluation report of the minicourse I, Effective Questioning in a Classroom Discussion. Inquiry includes information on the availability of minicourse I which has instructional and model lessons (on 16mm films), all printed materials needed, and film processing fees.

Accompanying leaflets include "Questions and Answers about the Minicourse Model", a list of 24 steps in the development program, a description of the main field test and operational field tests performed in the course development cycle, and a list of minicourses 2-16 with brief descriptions of goals and content plus notes on the present stages of development or field training.

Descriptions:
Course descriptions; Discussion (teaching techniques); Feedback; Inservice courses; Inservice teacher education; Instructional films; Microteaching; Self-evaluation; Teacher experience; Teaching models; Teaching procedures; Teaching skills; Video tape recordings.

Borg, Walter R.

The Minicourse Instructional Model. Minneapolis: American Educational Research Association, March, 1970. 6 p. ED 037 388. (AdeM, PCF)

This paper, originally presented with a film introduction to the minicourse model, overviews the development of a series of microteaching courses designed to train teachers in the specific teaching skills necessary to function effectively in the teaching-learning situation. Advantages of the instructional sequence are noted: focus on specific teaching skills which are precisely defined and illustrated in an instructional film and practice in a microteaching lesson with specific feedback via video tape recordings for evaluation.

The research and development sequence used in building and testing each minicourse is outlined with special emphasis given to the research-based development tuned to the reality of the classroom through a series of at least three field tests and revisions. The 17 minicourses currently completed or under testing of development are listed with their course goals. Minicourse I, "Effective Questioning in Classroom Discussion (elementary)" is already commercially available. Others in advanced stages of testing are Minicourse 2, "Thought and Language: Skills for Teaching Kindergarten Children with Minimal Language Experience"; Minicourse 3, "Effective Questioning in a Classroom Discussion (secondary)"; Minicourse 4, "Verbal Interaction"; and Minicourse 5, "Effective Tutoring in Elementary School Mathematics".

Descriptors:
Inservice courses; Industrial films; Microteaching; Teaching skills.

Borg, Walter R. and Others
The Effects of Videotape Feedback and Microteaching in Teacher Training Model. Berkeley, California: Far West Laboratory for Educational Research and Development, 1968. ED 024 650 (AdeM, PCF)

Minicourse I, a short microteaching program designed to change 12 specific classroom behaviors involved in conducting a discussion lesson, relies heavily on filmed illustrations by model teachers and provides feedback through carefully structured teacher self-evaluation of televised lesson replays. A study was designed to estimate the degree to which practice in the microteaching format and feedback from the videotape replay influenced learning in the minicourse as a technique for changing the behavior of student teachers.

Five groups of 15 to 17 student teachers from three teacher training institutions were subjects of the study. No variables appeared to influence their assignment to groups; three groups completed the entire minicourse, one was given all but the video tape recordings and replay, and one did no microteaching and received no feedback. Behavior change was measured by trained raters who scored coded 16-minute pre-and post-course video tapes of each student teaching his entire class. The three research hypotheses were tested using a one-tailed t-test; all three were supported. In general, the groups that completed the entire minicourse made more and larger changes in behavior than the others. Several significant changes occurred in the methods of conducting discussion lessons.

Descriptors:
Course evaluation; Discussion (teaching technique); Educational experiments; Feedback; Instructional films; Methods courses; Microteaching; Self-evaluation; Student teachers; Teacher behavior; Teacher education; Teaching models; Teaching skills; Video tape recordings.

Cartner, Alan and Riessman, Frank
The Transformation of Training; New Kinds of Consumer Based Services Require New Kinds of Training – Based on Participatory Simulation. New York: New Careers Development Center, New York University, October, 1971. 23 p. ED 055 212 (AdeM, PCF)

If human services are to become more responsive to the needs of the consumer, the training of the service worker will have to be radically transformed. Currently, the training of human service workers resembles that of prolonged apprenticeships. Teacher training, for example, required general education and broad knowledge rather than specific skills that would make the service more productive. Changes in the character of human services require that these services be more consumer-oriented, that they be offered in the style of the consumer, and the consumer be given opportunity to critically evaluate the service, and most important, that the consumer be directly involved as service-giver. The training of human service workers must prepare the worker for consumer participation. A training model that is geared to the development of the specific skills required for effective service delivery is needed.

Participatory simulation can be applied to all kinds of training. In the training of teachers, for example, mock classroom situations are set-up in which a number of teachers in training play the roles of children and one individual plays the role of teacher. Various problems are role-played or simulated. The group as a whole then discusses what has occured in the simulation, collectivizes its experience and brainstorms the problem; then solutions and various new approaches are suggested. The teachers in training may then move from the simulated sessions to a micro-teaching design where they are able to practice some of their new skills in a controlled small-scale classroom with a small number of children.

Descriptors:
Apprenticeships; Human services; Professional training; Simulation, Skill development; Student participation; Training techniques.

Emmer, Edmund T.
Transfer of Instructional Behavior and Performance Acquired in Simulated Teaching. Austin: Research and Development Center for Teacher Education, Texas University, May, 1970. 15 p. ED 051 136 (AdeM, PCF)

The purpose of this investigation was to determine whether instructional behavior learned during a series of simulated teaching experiences using peers as students would transfer to a setting in which "real" pupils were students. Subjects were 44 undergradate students in the secondary education program at the University of Texas at Austin. Each teacher presented a series of lessons with peers serving as students for the simulated teaching and one lesson with sixth, seventh, and eight grade pupils as students. Four lessons were rated and coded – the first lesson, the lesson immediately preceding that using "real" students, the real pupils lesson, and the lesson immediately following that using "real" pupils. Ratings were made of the four teaching discussions – determining readiness, clarifying objectives, motivating and evaluating.

Results indicated some behavior change during the period of simulated teaching with peers and provided some evidence that instructional behavior acquired during simulated teaching with peers will transfer to a simulated setting using actual pupils. It can not be concluded that these results would be obtained in other settings, such as the classrooms in which these teachers will eventually be placed. The results suggest that when peers are used as students in simulated teaching, attempts should be made to occasionally use actual pupils in the simulated teaching experience.

Descriptors:
Behavior change; Laboratory training; Simulation; Student teaching; Teacher behavior; Teacher education.

England. Royal Air Force. Technical Training Command.

Training Methods: an Analysis of the Research Findings. England: Royal Air Force, Technical Training Command, June, 1966 66 p. ED 024 000 (AdeM, (PCF)

The aims of this report are: to review the different research findings from the viewpoint of the methodology and variables involved, to indicate the limitations of the experimentation, and to suggest criteria by which decisions can be made as to which particular teaching method might or might not be most suitable for realizing specific learning outcomes. Among the best known teaching methods are: the lecture, the lesson-demonstration, the discussion group, the tutorial, discovery training, programmed learning, brain-storming and sensitivity training. Except for a few exceptions, there has been little valid experimentation, despite a rather voluminous literature. Some of the more important variables related to the overall learning and instructional process are: teacher attitudes and characteristics, style of leadership and supervision, spatial relationships, size of the group and class, the clash between teaching principles or knowledge, teaching aids, and classroom climate.

The conclusion is inescapable: the educator and teacher must exercise a professional diagnostic judgment in the light of their experience and the observed circumstances. In order to fulfill his role successfully, the modern teacher must play an active part in deciding what to teach and how to teach; each decision must be adjusted to both long range objectives and the needs of the moment as seen from the students' viewpoints. The controlling factors at every stage must be the student, the objectives and the resources available to meet them.

Descriptors:
Changing attitudes; Class size; Cognitive processes; Communication (thought transfer); Demonstrations (educational); Discovery learning; Group discussion; Instructional aids; Learning processes; Lecture; Programmed instruction; Research reviews (publications); Role playing; Self directed groups; Systems development; Teaching methods; Teaching styles; T-groups; Tutoring.

Girod, Gerald R.

The Effectiveness and Efficiency of Two Types of Simulation as Functions of Level of Elementary Education Training. Final Report. Pullman: Washington State University, September, 1969. 162 p. ED 035 299 (AdeM, PCF)

An experiment was performed to determine the efficiency of simulation teaching techniques in training elementary education teachers to identify and correct classroom management problems. The two presentation models compared were film and audiotape. Twelve hypotheses were tested via analysis of variance to determine the relative efficiency of these models for training sixty-five sophomores, junior and senior education students. Measures were taken for response quality, cues discriminated, response errors, stimulus recyclings, elapsed time, and attitude assessment. One half of the subjects from each class level were trained in handling classroom management problems using the 20 episode classroom Management films developed by Kersh. The remaining subjects were trained with audiotaped descriptions of the Kersh films. All groups were tested with both stimulus forms — films and audio-tapes — using a comparable set of 20 episodes.

Results on most hypotheses were equivocal, and experimental bias was held to be a source of obfuscation in the results. Results showed that sophomores tended to be less efficient to train during the first-half of training. Subjects working with films were also initially less efficient to train. The differential effects noted for level and form tended to decrease in the second-half of training. Effects attributable to training level tended to be non-significant for measures of effectiveness. No significant attitude differences were noted as a result of training format.

Descriptors:
Educational equipment; Educational experiments; Educational facilities; Educational research; Educational majors; Elementary school teachers; Learning; Simulation; Teacher education curriculum; Teaching methods; Teaching techniques; Training.

Goldwaite, Daniel Thaddeus

A Study of Micro-Teaching in the Preservice Education of Science Teachers. Columbus: Ohio State University, 1968. 142p. ED 027 184 (AdeM, PCF)

The effectiveness of microteaching techniques for improving presentation of science demonstration by prospective science teachers was investigated. Three groups of students of ten members each were randomly selected from professional education courses for science teachers. Group A students presented two trials of two different demonstrations. Each trial was recorded on video tape and replayed immediately for the student who had made the presentation. The students in the micro-classes verbally critiqued each presentation and evaluated it by using a Demonstration Evaluation Form developed for the study. Each person in Group B participated as a student in four or more micro-classes. The students in Group C did not participate in the microteaching experience. The following quarter, each student in Groups A, B, and C were evaluated while presenting demonstrations to classes in their secondary school practice teaching assignments.

Results showed more increase in the effectiveness between the first and second trials of the first demonstration in the micro-class. It was also concluded that students who were members of the micro-classes presented better demonstration when teaching than those who taught micro-classes.

Descriptors:
Biology; Chemistry; Doctoral theses; Effective teaching; General science; Instruction; Micro-teaching; Physics; Secondary school

science; Student teaching; Teacher education.

Hughes, Earl

Role Playing as a Technique for Developing a Scientific Attitude in Elementary Teacher Trainees. Ft. Lauderdale, Florida: Nova University, March, 1970. 23 p. ED 040 060 (AdeM, PCF)

Analyzed were the effectiveness of three types of attitude change techniques for changing the attitude of prospective elementary school teachers toward science. A sample of 219 prospective elementary teachers was administered a pretest to measure selected aspects of attitudes toward science. The subjects were assigned to one of four treatment groups which were stratified according to pretest attitude scores. A persuasive communication was administered to the three treatment groups three and one half weeks after the pretest. The control group received an innocuous communication and the posttest; one treatment group received persuasive communication and the posttest; the other two treatment groups received the persuasive communication. Of the latter two groups, one role-played a proponent of the scientific attitude while the other observed the role playing.

Results indicated that the combined treatment groups resulted in a much higher mean science attitude score than did the control group; however, the combined role-playing experience was no more effective than only reading the persuasive communication, reading the communication and role-playing, and reading the communication and role-playing the point of view of the communication.

Descriptors:
Elementary school science; Elementary school teachers; Instruction; Role-playing; Scientific attitudes; Teacher education.

Langer, Philip

The Range of Teaching Skills that can be Changed by the Minicourse Model. Berkeley, California: Far West Laboratory for Educational Research and Development, 1969. 29 p. ED 037 293 (AdeM, PCF)

Minicourse I, an auto-instructional package based on the microteaching-video tape recorder process, instructs the teacher in specific teaching skills and directs him in self-evaluation of his own teaching. Field tests of Minicourse (MC) I (questioning skill at the elementary school level) indicated behaviorally significant changes in teachers and led to the development of four additional models designed to test the generalizability of the minicourse principle to other teaching skills. Other minicourses developed were MC 2, teaching the kindergarten child with minimal language experience; MC 3, questioning in a high school class discussion; MC 5, tutoring in elementary school mathematics; and MC 8, organizing the kindergarten for independent learning and small group instruction.

Preliminary field tests, comparing pre- and postcourse behavior, indicate that all of the courses yielded significant teacher change and succeeded in providing teachers with a generalized approach for systematically dealing with problem areas. For example, MC 2 helped teachers to solve language problems systematically which previously were ignored or handled ineffectually; MC 3 increased pupil talk and discussed teacher talk in class discussions through judicious use of questioning techniques; MC 5 and MC 8 helped teachers to apply a systematic rather than hit-or-miss approach in structuring different types of learning situations. A description of the five models (skills taught and test data) is attached.

Descriptors:
Microteaching; Autoinstructional programs; Behavior change; Teacher education; Teaching skills; Audiovisual instruction; Course description; Teaching models; Course evaluation.

Mackey, William F.

The New Technology of Teacher Training. Quebec: Laval University, April, 1967. 6 p. ED 015 696 (AdeM, PCF)

The study is designed to give information about the use of closed-circuit television and videotape in training programs for language teachers. This brief document discusses their operation and potential and describes specific plans for quarters, equipment, personnel and operation. Included in the first selection on quarters and equipment are descriptions of the specification for a well-designed teaching studio, control room, and screening theater. In two briefer sections are accounts of personal needs (at least one full-time technician with experience in television work and an experienced teacher-trainer), and operation features (continual feedback between the studio and the control room).

Concluding remarks justify the use of this new training process as economically, technically and pedagogically sound.

Descriptors:
Closed circuit television; Language teachers; Educational facilities; Teacher education; Video tape recordings; Audio video laboratories; Electronic equipment; Instructional innovation; Instructional technology; Methods courses; Personnel needs; Preservice education; Studio floor plans; Observation; Modern languages; Television; Universaile Laval, Quebec, Canada.

Twelker, Paul A.
Simulation Applications in Teacher Education. Chicago: American Educational Research Association, February, 1966. 11 p. ED 025 460 (AdeM, PCF)

The paper discusses the application of the classroom simulation technique to problems of teacher preparation. In 1961, the Teaching Research Division of Oregon State System of Higher Education began developing a variety of simulated classroom situations through the medium of sound motion pictures and printed materials. It has been testing this technique which permits a supervising teacher to control the stimulus events in the classroom via simulated experience, forcing a teacher trainer to focus on a situation and devise different modes of responding. Instructional simulation offers the trainee an opportunity to build his own strategies of searching for cues that signal a decision-making process on his part, to test hypotheses he has about how to respond to these problems, and to change his behavior in view of the feedback he receives.

Findings from the first four years of research suggest that realism and prompting are not important variables in enhancing transfer of training in comparison with instructor differences and possibly length of training. Initial evidence indicates that there is transfer of learning from simulated to real experience, but much remains to be learned about how simulation best works. A project is underway to produce low-cost simulation packages (original materials required expensive laboratory facilities and equipment) that maybe adapted for self-instructional or group use as well as for the tutorial method now used.

Descriptors:
Class management; Classroom environment; College students; Decision making skills; Educational research; Education courses; Facilities; Feedback; Films; Instructional materials; Response mode; Simulated environment; Simulation; Teacher education; Teacher experience; Teacher response; Teaching procedures; Training techniques; Transfer of learning.

Twelker, Paul A.
Simulation: An Overview. 1968. 56 p. ED 025 459 (AdeM, PCF)

Simulation maybe defined as (1) a technique of modeling (physically, verbally, or mathematically) some aspects of a real or proposed system, process or environment; or (2) the model (physical, verbal, or mathematical) of some aspects of a real or proposed system, process or environment. Simulation maybe used to generate information about an operational or proposed system, process or environment (research); generate new systems, processes, or components (development) and develop knowledge or skills (instruction). When used for instruction, simulation represents certain elements of real life minus task-irrelevant elements. Given the types of representation of the stimulus situation, the response and feedback, classification of simulations or simulators is possible. Simulation maybe used to present information (referential simulation), elicit responses (contextual response simulation), or assess performance (criterion simulation).

Four features characterize contextual response simulation: (1) enacted or lifelike responses are made to (2) nonreal stimulus situations that (3) provide feedback to the student vis-a-vis his behavior in the ongoing context that (4) offers control. Transfer and movitation are additional factors to be considered. From simulations it is possible to learn winning strategies, principles and relationships, decision-making skills, identifications, procedural sequences, and skilled percetual motor acts.

Descriptors:
Decision making skills; Educational games; Instruction models; Motivation; Research; Role-playing, Simulation; Simulators; Systems development; Teaching techniques; Transfer of training.

Webb, Clark and Others
Description of a Large-Scale Microteaching Program. Provo, Utah: College of Education, Brigham Young University, 1968. 10 p. ED 027 250 (AdeM, PCF)

This report describes the implementation of a large-scale program at Brigham Young University to provide for at least one microteaching experience for each of the 750 students enrolled in a beginning education course. A definition of micro-teaching (the ease with which the teaching situation can be controlled and manipulated and the availability of immediate feedback for the student teacher) are included. A 6-to-8 minute video taped teaching act by a student, and positive evaluation by other students and an instructor (or graduate assistant) are presented as part of the 30-minute microteaching session which is structured to achieve a behavioral objective formulated especially for the course. Objections to the anxiety which the microteaching situation may create are described and discounted. The equipment, facilities, and logistical problems (especially those created by the time expenditure involved in over 700 thirty-minute sessions) are provided.

Closing sections summarizing student and faculty evaluation of the program's effectiveness emphasize that the concern is no longer with program justification but with program expansion.

Descriptors:
Effective teaching; Large group instruction; Microteaching; Program description; Program evaluation; Rating scales; Self-concept; Self-evaluation; Student evaluation; Student teachers; Teacher education; Video tape recordings.

Werner, Edwenna and Others
The Minicourse as a Method for Training Teachers to Stimulate Divergent Thinking. Chicago, Illinois: American Educational Research Association, April, 1972. 19 p. ED 064 340 (AdeM, PCF)

The Minicourse 20 is a brief self-instructional course consisting of five lessons, done one per week, each teaching several skills. The Minicourse 20 was developed to train teachers in techniques that will increase student's fluency, flexibility and originality by using brainstorming and other related techniques. The purpose of the study was to test the effectiveness of minicourse 20 in training teachers to use these techniques and to determine whether their students' divergent thinking improved. The relative effectiveness of audiotape and videotape feedback in microteaching was also tested. Fifty-nine inservice teachers in grades 1 through 12 took the minicourse 20: Divergent Thinking. Tapes of brainstorming sessions were made before, after, and seven weeks after the course ended.

Experimental teachers improved significantly more than the controls in the skills of not evaluating during brainstorming and not making unnecessary comments (e.g. repeating answers) or shaping student ideas (e.g. probing answers). They did not show improvement in the use of techniques such as categorizing to stimulate more divergent brainstorming. Teaching skills were acquired equally well by teachers who microtaught with audiotape feedback and by those who microtaught with videotape feedback. Control teachers showed no gains in fluency, flexibility and originality. The secondary sample did not improve. There were no significant differences between experimental and control groups on the Torrance Tests of Creative Thinking given before and seven weeks after the course.

Descriptors:
Comparative analysis; Divergent thinking; Educational research; Elementary school teachers; Evaluation techniques; Feedback; Inservice teacher education; Microteaching; Secondary school teachers; Statistical analysis, Teaching techniques.